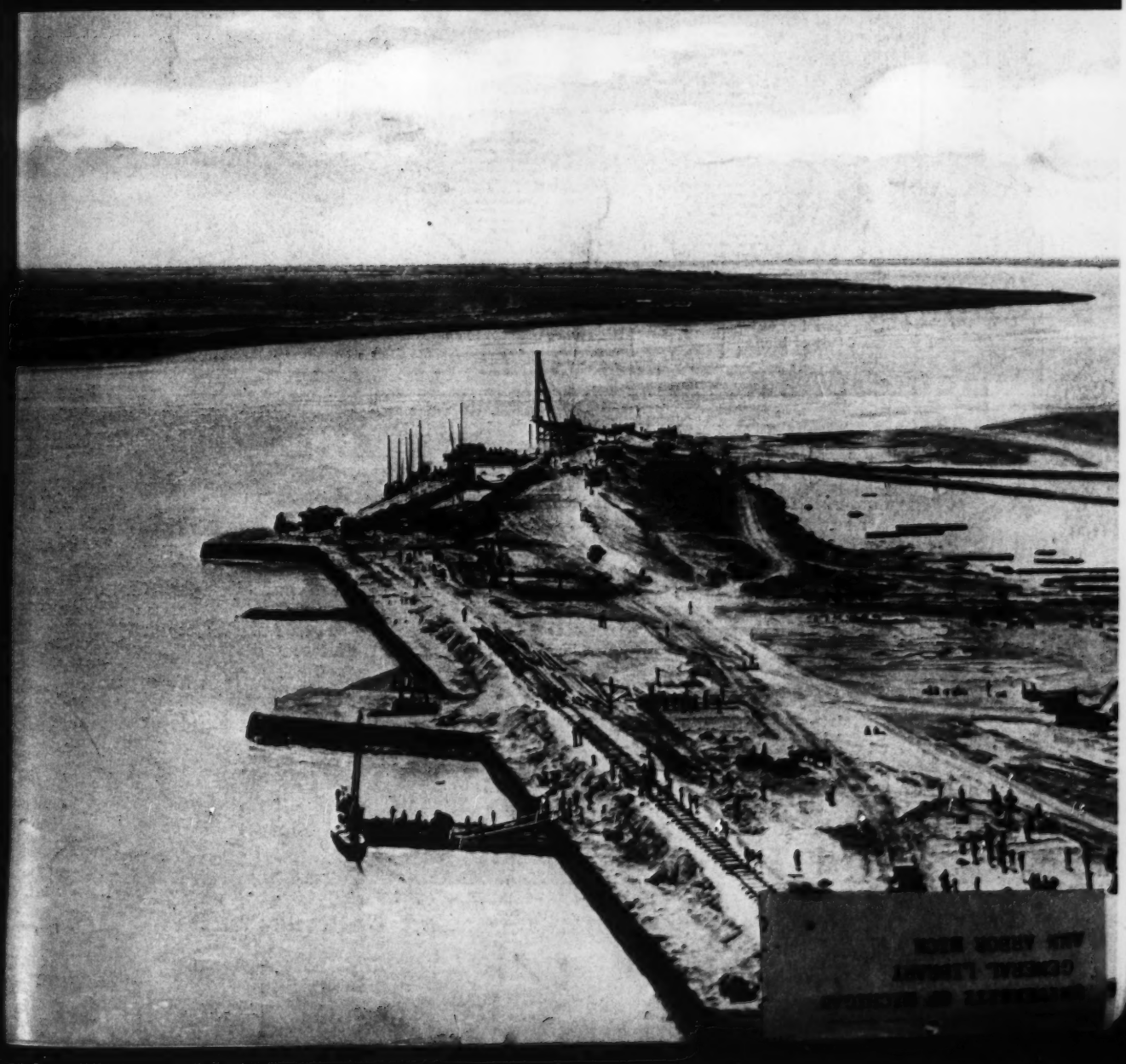
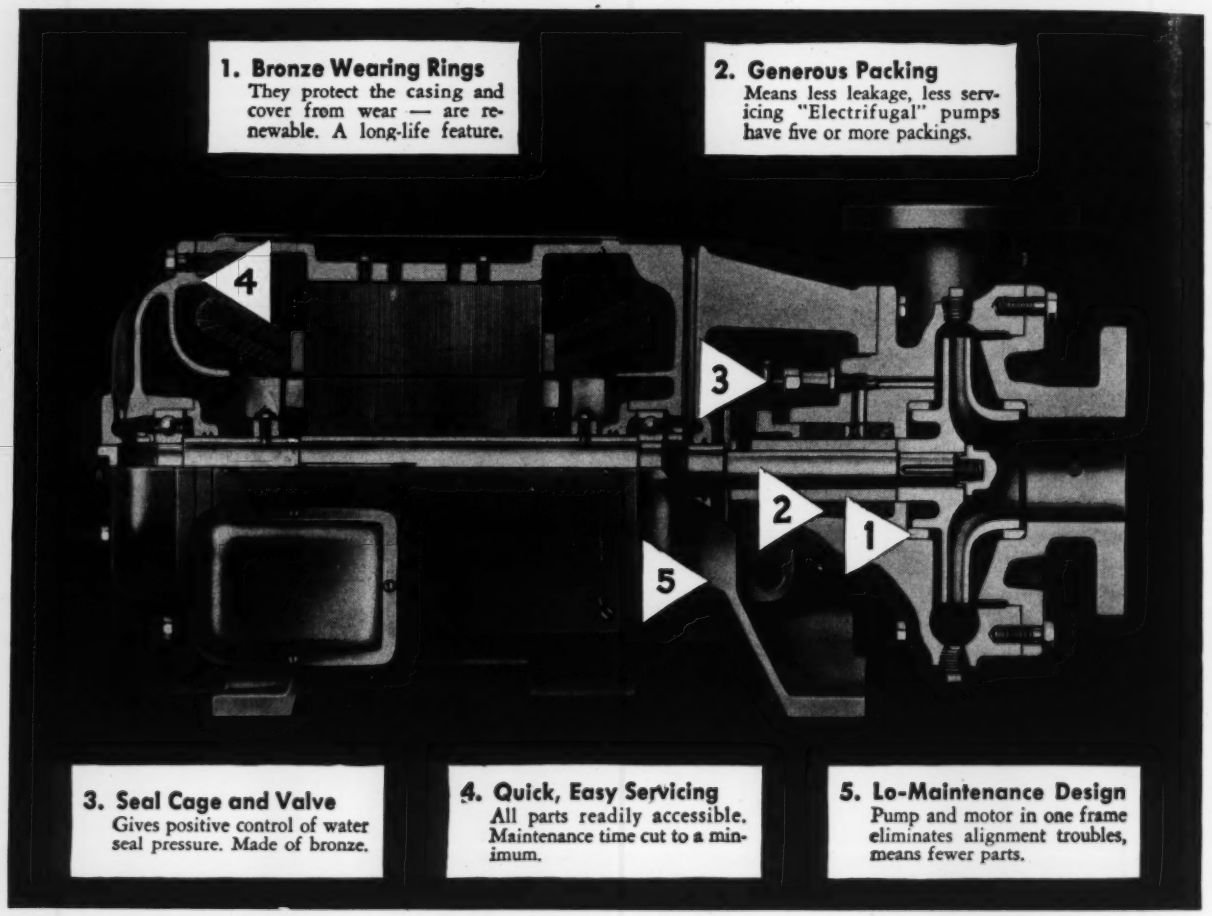
ENGINEERING NEWS-RECORD

While civil war threatens, engineers work steadily to curb China's Yellow River.



CONSTRUCTION DETAILS
that cut pump maintenance costs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4
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ALLIS CHALMERS *Electrifugal* **PUMPS**

News of the Week

ENGINEERING NEWS-RECORD • AUGUST 29, 1946 • VOLUME 137 • NUMBER 9

Federal-aid road work tops $473 million at end of July

Public roads administration reports that a record amount of road work is under contract.

In the first 7 months of 1946 the highway departments of the 48 states, the District of Columbia, Hawaii and Puerto Rico had awarded contracts for, had work under way or had completed work on 10,215 miles of federal-aid highways, at a total cost of $473,433,000, according to the Public Roads Administration.

PRA's figures, compiled just before orders went out on Aug. 5 to federal agencies to cut their construction programs (*ENR* Aug. 8, vol. p. 147), showed that in addition to the work already under contract or under way, some $171,311,000 in plans for 3,625 miles of roads had been approved, and $607,609,000 of work on 16,253 miles of roads had been programmed by the states and governmental subdivisions.

Road work to continue

The Aug. 5 curtailment order does not apply to the provision of federal funds for highways, where the federal government has already made commitments to the states for provision of funds through the approval of programs by PRA. However, PRA Commissioner Thomas H. MacDonald, when advising the state highway departments to this effect (*ENR* Aug. 15, vol. p. 199), urged them to keep federal-aid highway expenditures at a minimum. He added that any project that has been included in a state program, approved by PRA, may be considered a firm federal commitment, and may go ahead.

Complete 254 road miles

A breakdown of the totals to the date of the PRA report (July 31), showed that 254 miles of road, costing $6,168,792 was completed. Largest total of completed roads was in Texas, which had 65 miles, at a cost of $531,971.

Work actually under way totalled $385,561,000, on 7,350 miles of highway. Texas again led the list, with 957 miles of highway underconstruction, at a cost of $22,629,580. Nebraska had 409 miles under way, costing $9,456,000; Kansas had 439 miles under way at a cost of $14,870,000, and Minnesota had 404 miles, costing $12,956,000.

Work on which contracts had been awarded totalled $81,704,000, for 2,612 miles of road. Biggest mileage in this category was recorded in Texas, Minnesota and Iowa, with 290, 230 and 219 miles, respectively.

Greatest totals were in the programmed stage, but exactly what the status of these plans would be in view of Mr. MacDonald's caution, was not immediately apparent.

FEDERAL-AID ROAD WORK, AS OF JULY 31, 1946

STATE	CONTRACT AWARDED			UNDER WAY		
	TOTAL COST	FEDERAL FUNDS	MILES	TOTAL COST	FEDERAL FUNDS	MILES
Alabama	$1,669,720	$843,310	34.1	$9,760,822	$5,195,918	174.7
Arizona	.....	.....	.....	7,550,563	5,297,019	175.7
Arkansas	2,400,006	1,009,513	80.4	7,965,502	4,859,930	158.7
California	4,982,200	1,997,994	22.3	39,828,214	20,954,813	288.1
Colorado	1,013,128	594,805	22.5	4,662,905	2,860,059	101.7
Connecticut	446,169	260,038	.3	3,719,021	1,830,238	18.4
Delaware	419,740	314,805	17.2	1,204,983	787,679	23.1
Florida	73,214	59,909	.5	2,415,890	1,264,365	45.1
Georgia	1,504,381	867,302	53.7	12,222,132	6,716,365	255.1
Idaho	474,825	298,944	11.6	3,375,883	1,877,372	42.7
Illinois	3,757,510	2,040,760	47.1	8,740,423	3,449,445	69.0
Indiana	2,157,674	1,202,313	19.1	8,262,713	4,602,444	94.4
Iowa	4,008,649	1,443,485	219.5	11,095,697	4,950,560	402.7
Kansas	4,438,476	2,014,095	154.8	14,870,283	7,805,605	439.7
Kentucky	2,265,750	1,132,987	100.5	8,465,079	4,419,795	207.6
Louisiana	78,571	43,216	1.7	3,479,015	1,833,081	19.3
Maine	775,880	387,940	13.7	3,206,591	2,067,269	46.1
Maryland	350,950	179,200	3.0	7,099,542	4,739,880	60.5
Massachusetts	1,444,180	1,158,572	4.3	5,194,097	3,060,880	23.2
Michigan	861,101	437,401	26.4	7,020,954	3,547,971	119.3
Minnesota	3,660,513	1,516,034	230.4	12,956,994	6,058,175	404.6
Mississippi	2,789,336	1,394,668	81.5	5,262,492	2,978,967	130.7
Missouri	2,663,296	1,343,115	144.5	8,687,972	5,106,463	159.3
Montana	1,872,741	1,100,432	104.3	5,197,557	3,602,958	119.6
Nebraska	1,184,614	591,127	94.0	9,456,156	4,760,864	409.7
Nevada	1,335,835	1,081,192	57.6	3,205,380	2,647,303	104.7
New Hampshire	.....	.....	.....	1,012,105	618,783	1.5
New Jersey	1,685,620	842,435	.1	3,972,168	1,688,752	4.1
New Mexico	1,240,580	791,095	57.5	3,783,337	2,517,161	113.2
New York	2,219,920	1,049,225	23.4	13,572,910	7,431,010	134.0
North Carolina	33,575	25,170	.....	10,653,880	5,507,217	297.0
North Dakota	1,483,932	843,835	58.3	2,838,780	1,740,197	77.5
Ohio	2,060,196	1,032,601	7.6	10,662,737	5,346,664	30.8
Oklahoma	2,060,634	956,337	158.7	9,899,977	5,989,312	217.5
Oregon	1,053,828	596,494	54.1	12,307,563	7,127,023	223.2
Pennsylvania	7,619,021	3,536,414	16.2	10,655,597	5,506,875	57.6
Rhode Island	.....	.....	.....	510,152	255,990	.....
South Carolina	2,636,785	1,302,921	108.5	8,379,080	4,565,468	219.0
South Dakota	1,639,148	1,073,297	109.2	2,656,484	1,730,677	151.4
Tennessee	593,801	318,497	5.6	13,445,045	9,806,163	70.1
Texas	4,507,630	2,201,200	290.8	22,629,580	11,836,070	957.5
Utah	512,928	381,974	14.8	2,658,759	2,100,874	74.4
Vermont	7,310	7,310	.....	1,472,410	871,938	16.8
Virginia	193,270	140,193	2.1	7,862,760	5,728,734	33.5
Washington	1,327,249	753,928	36.1	9,031,659	5,778,945	180.9
West Virginia	541,300	272,900	10.8	3,615,685	1,916,260	29.8
Wisconsin	2,872,664	1,153,298	75.8	7,934,079	3,034,980	139.9
Wyoming	624,967	472,421	36.0	4,897,683	3,369,903	205.7
Hawaii	48,780	48,780	.....	4,777,079	4,593,799	18.2
Dist. of Columbia	112,345	56,150	.9	1,091,167	545,574	1.7
Puerto Rico	.....	.....	.....	332,856	200,699	1.0
Total	81,703,942	41,169,632	2,611.5	385,560,392	217,083,586	7,350.0

NEWS IN BRIEF

In telegraphic form, here are latest news developments on the engineering and construction front during the week.

Construction—The Turner Construction Co. has been awarded a $500,000 contract for construction of a 3-story office building at the River Works plant of the General Electric Co. in *West Lynn, Mass.* . . . Designs for a $1,600,000 public library building have been submitted to city officials of *Miami, Fla.* . . . Radio station WKAK, *Birmingham, Ala.*, is planning the construction of a $100,000 building. . . . *Jefferson County, Ala.*, will build a $600,000 senior high school. . . . Ground will be broken Aug. 10 for a $750,000 milk plant at *Monett, Mo.* . . . Danahy-Faxton Stores, Inc., has given a $1,250,000 contract to Turner Construction Co. to build a warehouse and office building in *Philadelphia, Pa.* . . . E. I. du Pont de Nemours & Co. Inc., *Wilmington, Del.*, have plans for a $17,000,000 expansion program at their experimental station in New Castle County. . . . Philadelphia Wholesale Produce Terminal Co., will build a $6,500,000 wholesale produce terminal at *Philadelphia, Pa.* . . . The *Pennsylvania* Department of Property and Supplies announced plans for a $2,500,000 prison building at *Gratersford.* . . . Allentown Hospital, *Allentown, Pa.*, plans additions and alterations to cost $1,250,000, bids to be opened Sept. 10. .

Highways—The *North Carolina* State Highway Commission on Aug. 15 let contracts aggregating $2,333,091.26 on 27 projects for 200 miles of roads. . . . *Oklahoma* is letting about $2,000,000 of contracts for road construction this week. . . . Thus far this year, the *Idaho* state highway department has awarded contracts for $4,706,702 worth of road construction—three times as much as ever before in one year. . . . The *North Carolina* State Highway Department has outstanding 121 contracts totalling $12,680,873. . . . *Oregon* has $37,000,000 available for highway construction and maintenance this year.

Housing—Managers of 14 cities in *Oregon* have agreed that all municipal construction except housing should be halted until shortages are relieved. . . . Wood Dale Corp. will build a $1,300,000 development at *Glenside, Pa.* . . . Counties Engineering and Construction Co. will build 184 houses at total cost of $1,200,000 at *Gloucester, N. J.* . . . Metropolitan Homes, Inc., a non-profit organization, has plans for 1,000 houses for veterans near *Doraville, Ga.*, to cost about $5,000,000. . . . The Ideal Construction Co. has obtained a permit for the first section of a $5,000,000 development in northeast *Philadelphia, Pa.* . . . McCloskey and Co., will build homes to cost more than $5,000,000 at *New Brunswick N. J.* . . . T. C. Holmes, *Decatur, Ga.*, contractor, plans to build 250 houses there at a total cost of $2,000,000. . . . Construction has started on a 250 single-family housing development at *Falls Church, Va.*, by Client and Builder Tyler Corp. . . . A $1,000,000 contract to provide 308 housing units for veterans at Kansas State College, *Manhattan, Kan.*, has been awarded to Busboom & Rauh, of Salina.

Water and sewerage—A site for the construction of a $2,700,000 sewage treatment plant at *Knoxville, Tenn.*, has been selected and surveys and drilling are under way. . . . *Ft. Myers, Fla.*, has awarded contracts totaling $300,000 for improvements to its water supply. . . . Daniel Construction Co. of Greenville, S. C., is constructing a $300,000 sewage disposal plant at *Graniteville, S. C.* . . . Bids are to be sought soon for a new $1,200,000 reservoir at *Tulsa, Okla.* . . . The Ohio Public Works Department has postponed till next year the draining of the industrial water canal between *Delphos, Ohio*, and a 40-acre pond to the south. Substitute industrial water supply wells will be drilled. . . . The following sewer collection plans are being considered in *New Jersey:* A $300,000 system at *Mt. Holley;* $250,000 at *Magnolia;* $217,000 at *Runnemede;* $350,000 in *Landis Township.*

Bond issues—A $475,000 bond issue to finance a sewer expansion program and a 2-mill operating levy for two years will be proposed to University Heights, Cleveland, Ohio, voters at the November election. . . . At a special election voters of *Guthrie, Okla.* will pass on three proposed civic improvement projects. . . . A $100,000 civic improvement program will be put before voters of *Nowata, Okla.*, in the near future.

Marine borers blamed for bridge collapse

Collapse of two spans of a bridge over the Manasquan River near Brielle, N. J., is tentatively blamed on marine borers by Charles M. Noble, state highway engineer of New Jersey. The bridge crosses the wide tidal channel of the river. It consists of a number of short spans carried on low concrete piers, which in turn are supported on piles. On Aug. 20 one of these piers collapsed, dropping the ends of two spans several feet. In falling, one of the spans wedged the adjoining lift span over the navigable channel, making it impossible to open that span for the passage of pleasure boats on the river.

Since the bridge was built in 1924, the navigable channel was dredged, and this deepening is believed to have changed the flow under the bridge, resulting in scour that exposed the piles of the collapsed pier, making them subject to attack by teredos.

An examination of the collapsed pier and of other piers by divers is now being made under the direction of the state highway department.

County law controls waste disposal beyond city lines

Under an ordinance effective Aug. 9, Los Angeles County, Calif., will prevent the discharge of industrial liquid wastes that might pollute underground or surface water supplies in unincorporated areas.

Adopted as a series of amendments to ordinance No. 614, the ordinance provides:

All industries must secure permits for the discharge of industrial wastes including existing industries which are legally discharging their wastes; that the county engineer and county health officer establish standards for the disposal of industrial wastes in various sections; said standards to be subject to change or modification from time to time to meet new or changing local conditions, and calls for the establishment of procedures for approval of plans; for periodic sampling and tests of industrial wastes and for inspection of disposal facilities, and for conduct of field investigations or other action "necessary to prevent improper disposal."

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Cities push water expansion projects

Spurred by the demands of new housing, industrial plants and war-deferred repairs, many cities last week reported action on plans for improvement and expansion of waterworks facilities. Typical cases are the following:

The Santa Barbara, Calif., city council has endorsed a water development plan calling for construction of a $6,000,000 reservoir below the city's present Gibraltar Dam on the Santa Ynez river, having decided not to wait possible completion of a proposed $37,400,000 countywide program. The city water commission has been authorized to circulate petitions for an election to establish a Greater Santa Barbara water district. The city's water supplies are being diminished by silt infiltration at Gibraltar Lake.

All of the $37,400,000, which would be advanced by the federal government for development of the area's water supply, would have to be repaid over a 65-year period on the basis of water sales, with no non-reimbursed costs for flood control benefits.

Army Engineers pointed out that although 100,000 acre-ft. of the 275,000 to be impounded by the new reservoir would originally be for flood control, increasing population would necessitate using the entire reserve for water conservation in about 35 years.

Ogden, Utah, to enlarge water mains

Ogden, Utah, has launched a program to replace all 2-in. and 4-in. water mains with 6-in. lines, according to City Commissioner Harold L. Welch, director of the municipal waterworks. Petitions by residents demanded that low pressures be increased.

Welch explained that the small lines had been installed when there were only few houses in the area and now they had been built up, leaving an inadequate water supply.

Meanwhile, the Metropolitan Water District of Southern California has authorized doubling the present capacity of its softening and filtration plant by construction of a new $2,500,000 unit. The plant, near LaVerne, Calif., softens and filters Colorado River water at the rate of 150 cu.ft. per second. It was designed to have four softening and filtration units to handle ultimately 600 cu.ft. per second.

Tampa's filter plant to be expanded

Tampa, Fla., has agreed to appropriate an additional $200,000 needed to proceed with the proposed rebuilding and expansion of its waterworks filter plant and to approve acceptance of the low bid made for the project—$698,672, submitted by Lewis and McDowell, New York contracting firm. This was some $200,000 over original estimates.

The improvements to the filter plant are needed, engineers say, to step up output of water beyond the daily consumption rate in order that adequate pressure may be built up in the mains.

At New Orleans, La., the Sewerage and Water Board plans to call for bids soon for the construction of a water main from its purification plant to the other side of the city. A total of 46,150 lineal feet of pipe will be required.

Durham, N. C., requires rat-proofed buildings

An ordinance has been adopted at Durham, N. C., which requires the rat-proofing of existing buildings in the business area and of all others to be built in the future. Inspection of buildings in the business area to determine if they need such work is now under way, under the supervision of the city engineer's office, city officials announced.

Offers 5-point program for Canadian housing

A 5-point program to insure the success of efforts to attain the 1947 quota of 80,000 new homes in the Dominion of Canada has been outlined by C. D. Howe, minister of reconstruction.

The program includes:

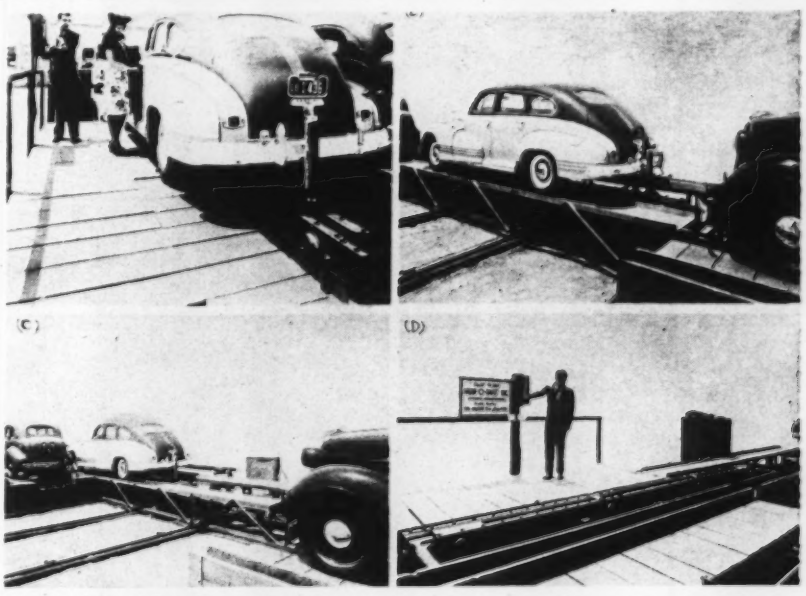
(1) The Central Mortgage & Housing Corporation, Crown owned company set up to administer the National Housing Act and make loans for home building, is establishing an organization to look after the 1947 plan.

(2) Incomplete 1946 construction is being kept constantly under review by the corporation and will receive its assistance to meet material shortages.

(3) The corporation will consult proper departments of provincial governments to obtain their co-operation, as well as advice and assistance, in reviewing the needs of municipalities.

(4) Within the next three months the government will confer with some 120 municipalities on ways and means of assisting them in solving their housing problems.

(5) Consideration will be given to the portion of the 1947 program which can be started in the fall of 1946.



***No Scraped Fenders**—Drastic savings in space, handling and construction are claimed by manufacturers of a new, fully automatic parking device which may make profitable narrow parking lots in congested business areas. A mechanism grips the car by the bumpers, moves it to an elevator, which lifts to the desired floor level or moves sideways to a designated stall. On arrival at the stall, the car is moved off the elevator into its place. The process is reversed to return the vehicle to the entrance. Not so complicated as a somewhat similar type develop by British engineers (ENR Jan. 31, vol. p. 153), the new device is being manufactured by Park-o-Mat Inc., Los Angeles, Calif.*

DEVELOPMENT BEYOND U. S. BORDERS

Digested from reports by Engineering News-Record correspondents and the McGraw-Hill World News Bureau

Engineers winning battle to close dikes on Yellow River in China and force stream back into its course after an eight-year rampage

CHINA—Working against the combined forces of a great river and a confused political situation, using hand labor and materials ranging from steel mats and rock to rice stalks, U. S. and Chinese engineers last month apparently had won the first battle in their fight to curb the Yellow River in China and turn it back into its former course.

A mile-wide gap in the ancient dike system had been partly closed after eight years, and part of the stream's flow was back in its old bed.

Twelfth largest river in the world, the Yellow has always constituted one of China's greatest problems. Its annual floods, caused by tremendous run-off of the country it drains, have been annual scourges that have killed many and ruined thousands of acres of rich farm lands.

Over nearly 4,000 years—until 1938—the Chinese had built up a system of dikes to contain the river with some degree of success, despite the stream's heavy load of silt which had in some places built the stream bed many feet higher than the surrounding countryside.

But in 1938, after Japanese forces took Kaifeng, the provincial capital of Honan, the Chinese Central Government ordered the blowing of the dikes at Huayuankow—some fifty miles west of Kaifeng. From a military standpoint, the results were gratifying. The Japanese advance was stopped. But some thousands of coolies were drowned in the resultant flood, and more than 1,500,000 acres of badly-needed farmland was ruined.

As the river broke through the gap in the dikes, it carved itself a new course across flat country into the valley of Hwai River, south of a course it had once followed, to empty into the sea south of Shantung peninsula, instead of north.

After the defeat of the Japanese forces, the Central Government took up with the United Nations Relief and Rehabilitation Administration the problem of switching the river back to its pre-1938 course. UNRRA aid would be necessary, to provide some of the machinery, and more importantly to provide food for the workers on the project.

Immediately, political considerations entered the picture. The area to be reclaimed in the "new bed" of the river is entirely in Central Government hands. The area of the "old bed"—to which the river will be returned—is largely Chinese Communist territory. The effect of the switching will be to increase Central Government arable land and reduce that of the Communist, and additionally present the Communists with a continuing flood-control problem.

(Just what effect the Communist mobilization order of August 19—tantamount to a declaration of war on the Central Government—will have on completion of the work was most uncertain last week. Some fighting was already reported at Kaifeng, within 50 miles of the scene of the work, and whether the Communist forces would permit the completion of the job—which would in effect throw another barrier into their path to the Central Government territory to the south seemed doubtful . . . Editor.)

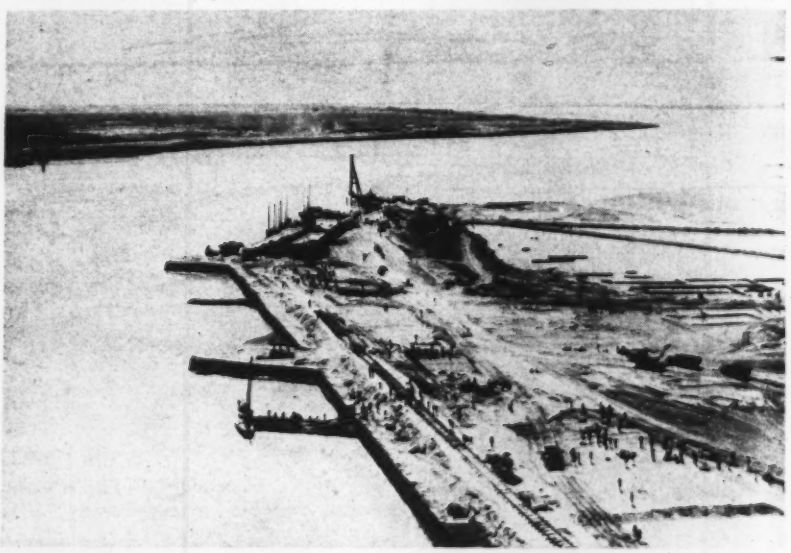
American arrives

Negotiations were deadlocked until early in 1946, when Oliver J. Todd, of Palo Alto, Calif., arrived to direct the closing of the gap at Huayuankow in his capacity as advisor for UNRRA to the Yellow River Commission.

Oliver J. Todd

An old hand on Chinese rivers shows Chinese how to operate American equipment.

An old hand at controlling floods in Chinese rivers (he has spent some 26 years at the work) Oliver Todd knows what methods have proved successful in the past, what materials are available, and how to handle Chinese labor. His



***Big Gap**—Looking east along the old and new courses of the Yellow River at Huayuankow. The old course of the river turned sharply to the left past the point where engineers can be dimly seen starting to build out to met the dike under construction in the center. This picture was taken last June. The new channel can be seen at the right.*

boundless energy and complete confidence in his ability to carry his job through makes him a tower of strength to the Chinese forces.

Driving himself and his American and Chinese assistants—and some 200,000 coolie laborers—Todd by late July had succeeded in fully closing half of the gap in the dikes, and diverting half of the river's flow to its former course. He had been able to throw enough material into the break to retain control of the water, according to the reports, and to consider the work "safe" so far as flood or rain damage is concerned. He had also apparently succeeded in getting the opposing political forces to work together for completion of the project.

Not complete until 1947

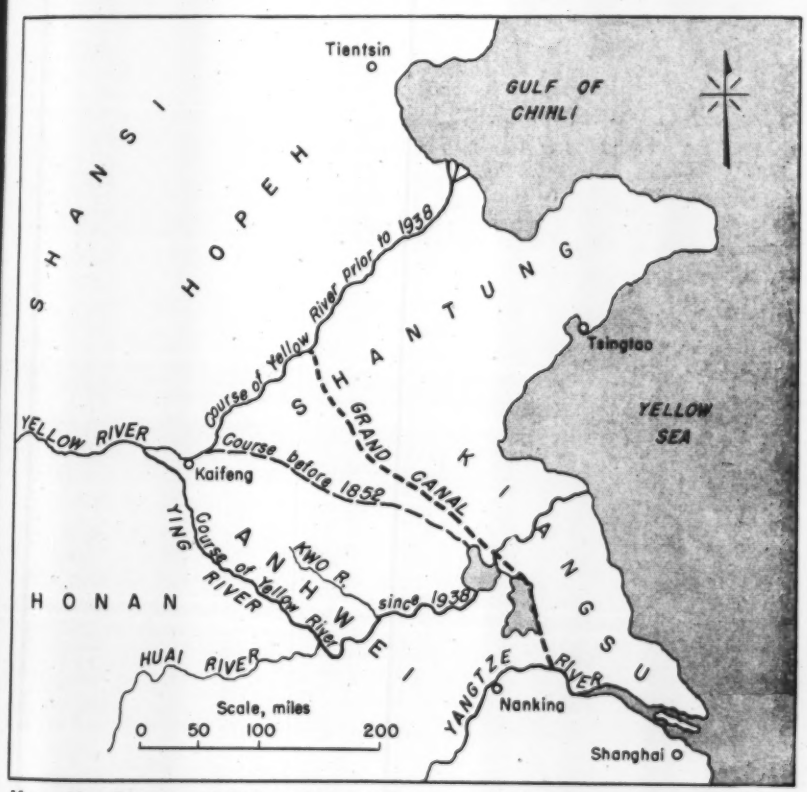
It is not expected that the project will be fully completed and the flow fully diverted this year. Completion hinges on getting all of the people out of the former stream bed, where many "squatted" after the 1938 break.

Todd and his principal assistant, Donald W. Gilfillan, also of Palo Alto, have been able to supplement the work of the Chinese coolies with some 51 motor vehicles, including road scrapers, dump trucks, a pile driver, rollers and three cranes.

To close the gap, the men have been building embankments of earth, kaoling (rice) stalks and willow branches out into the river from both sides of the break. At the end of the embankment on both sides, they began to drive piles late in May, the piles to support a trestle which was completed late in June. Between the piles, wire-mesh flood mats were laid down, and rock fill laid on top of the mats. When this rock work is completed, the fill will be covered (probably not until next year) with burlap and an earth covering.

Minimum depth of piles is 28 ft., and maximum 38 ft., with drivers attempting to reach at least 30 ft. on every pile. Pile trestles were driven for a total distance of 1,535 ft. Piles are Douglas Fir, shipped from Oregon for the purpose, and about 500 piles in all were used to complete this phase of the work.

Estimated cost of the project, when completed, is between $12,000,000 and $15,000,000 in U. S. currency, plus an additional expenditure by UNRRA of about $3,000,000.



How the Rivers of China Flow—*The great Yellow River has reached the sea by at least three courses in its long recorded history. Up to 1852, part of it flowed south of Shantung Peninsula into the Yangtze, then dikes moved it northward. Wartime "scorched earth" policy threw it back into a southerly course in 1938. Engineers are now at work to curb the stream and force it back to its pre-1938 bed to reclaim much-needed farmlands.*

World engineer body sets meeting at Paris

Many Americans to speak at International Technical Congress to be held September 16 to 21

To determine their role in building for stability and prosperity in the postwar world, engineers from all parts of the world will meet in Paris Sept. 16 to 21 as the first International Technical Congress.

Col. Aristide Antoine, former president of the Union of French Engineers and Technicians, will act as president at the sessions.

A two-fold purpose has been assigned to the congress—first, the interchange of information on technical questions of a general nature, and second, discussions of social and economic problems of particular interest to engineers.

Also to be considered, although informally, at the meeting will be the creation of an international federation, embracing all engineering professions. Such a body would work closely with the United Nations Educational, Scientific and Cultural Organization, (UNESCO) and would have as members local organizations in each profession.

UNESCO is sufficiently interested in the development of such an international overall engineering group to have agreed to send two observers—Yeh Chu-Pei and Bires Chandra Guha—to the congress. Andre Bostsarron, acting secretary-general of the congress, said that any decisions taken will not be binding on local associations.

The U. S. Committee for the congress is headed by C. E. Davies, secretary of the American Society of Mechanical Engineers. Members include: W. N. Carey, secretary of the American Society of Civil Engineers; A. B. Parsons, secretary of the AIMME; H. H. Henline, national secretary of the AIEE, and S. L. Tyler, secretary of the AICE.

About 130 papers will be delivered at the congress in four major sections and 22 subdivisions. Copies of the papers will be available, after the meeting, from the General Secretariat, 27 rue de Constantine, Paris VII.

American speakers scheduled to appear include: David Lilienthal, chairman of the Tennessee Valley Authority; P. G. Agnew, secretary of the American Standards Association; Maj. Gen. Philip B. Fleming, director, Public Works Administration; Morris L. Cooke, consulting engineer of Philadelphia, Pa.; Leland Olds, chairman of the Federal Power Commission; Harold M. Lewis, New York City consulting engineer, and L. E. Grinter, vice president of the Illinois Institute of Technology.

Sees increase in special-type homes

Large production of houses built of concrete, metals and new materials is a definite possibility, according to John N. Gwinn, materials specialist, National Housing Agency, Region 3, who revealed estimated potentials to the first annual conference of the National Institute of Governmental Purchasing at the Stevens Hotel, Chicago, Aug. 19.

NHA estimates indicate that it would be possible to build 785,000 dwelling units per year with the materials mentioned: 325,000 of concrete, including single units and multiple dwellings, using both precast and cast-in-place concrete; 240,000 of steel or aluminum; and 225,000 with new special products.

New products, according to Gwinn, represent developments utilizing special papers, plywood and other materials in combination with steel and aluminum to save construction time and reduce material costs. Further, he declared, there is a good possibility of using plastics in building thousands of houses. The estimate for concrete dwellings is based on data assembled from manufacturers.

At the same session, George S. Brady, Washington, D. C., materials expert, asserted that the government has acted improvidently in failing to conserve lead, a scarce metal. Selling lead below cost and making up the difference with subsidies have discouraged development of new methods and substitute materials. About half of the total production of lead has been employed in dissipative uses, such as paint, he said, where the metal is unrecoverable.

Public works planning progresses

Maj. Gen. Philip B. Fleming, administrator, Federal Works Agency, reported in an address to the same gathering that, as of Aug. 1, 4,282 applications totalling nearly $30,000,000 had been approved for public works planning advances to state and local governments. He said that 2,892 applications for almost $37,000,000 additional were under review. Advances already approved are helping to plan public works projects estimated to cost more than a billion dollars, he declared, and pending applications, if approved, would furnish assistance for planning work in excess of another billion dollars.

Discussing construction machines and vehicles of the future, Vincent B. Smith, western editor, *Engineering News-Record* and *Construction Methods*, predicted that new models brought out in the next few years would be improved versions of today's basic types, with greater power and higher efficiency. New models, he said, will be designed for ready accessibility of mechanical parts, easy operation, improved lubrication, and longer periods of use between stops for lubrication and layups for overhaul.

CONTRACTOR CARRIES ON WITH 30-YEAR-OLD NAILS

Woolrich and Clark, general contractors of Owen Sound, Ont., have been staging a treasure hunt for nails. In a nearby town they unearthed two tons of square nails which have been out of style for 30 years.

The merchant from whom the nails were purchased had kept them in the basement of his shop, because no one wanted them.

The "find" enabled the contractors to continue construction.

Report continued shortage in construction materials

Shortages of essential building materials continued to form the major block to housing construction in the Midwest and South Central sections of the U. S. last week.

Typical of the situation were reports from St. Louis, Mo., which said that shortages of the materials will make it impossible for builders to complete some 4,000 to 5,000 dwelling units before winter. Several thousand other housing units probably will not be started because builders know that under existing conditions it will be impossible for them to obtain materials. Robert M. Berkley, president of the Home Builder's Association, said that most private builders had discontinued new construction. He added that skilled workers in construction trades are now becoming more available because of the cutdown in the number of structures under way.

In North Carolina builders reported that deliveries are continuing exceedingly slow. They said it is practically impossible to obtain shipment of concrete pipe in less than 60 to 90 days after receipt of orders, and delivery dates on reinforcing fabric used in making the pipe are close to four months after receipt of order.

In Oklahoma, dealers at Tulsa reported that the lumber situation is "slowly" easing. They said that moderate shipments of Douglas fir and Ponderosa pine products had been received recently. They pointed out, however, that the demand is far ahead of the supply and would continue in that proportion for some time.

Speed salvage of surplus military building materials

Salvage of surplus buildings and scarce building materials from military installations in the United States will be speeded under a coordinated inter-agency program agreed upon Aug. 15, Reconversion Director John R. Steelman has announced.

Interested federal agencies will jointly survey those military facilities which have been or soon will be declared surplus and seek agreement upon the division of available structures and materials.

A joint survey of the surplus military installations will be the first step in the inter-agency program. After this is made each agency will notify War Assets Administration what buildings and materials it will seek at each installation. Inter-agency conferences will be held to agree upon the division of the surpluses at each camp.

Under the program, the Federal Housing Administration and the Federal Works Agency will have first claim on buildings which they intend to re-use as temporary housing or institutional facilities under the Veterans' Education Program. Other federal agencies, states and municipalities and non-profit institutions which plan to re-use whole buildings on other sites will be given the normal priority, as provided under the Surplus Property Act.

After these claims have been satisfied, representatives of the Army and the National Housing Administration will seek agreement on the division of scarce materials, such as lumber and soil pipe which can be salvaged when remaining structures have been torn down.

Revise FHA small-home planning hints bulletin

A revised edition of the Federal Housing Administration's bulletin "Principles of Planning Small Houses," has been printed and is available free to architects and builders at local FHA field offices, an announcement said last week.

Copies may also be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D.C.

The booklet takes the place of the original Bulletin No. 4, published in 1940, which proved to be the most popular of FHA technical publications.

Chief purpose of the bulletin is to stimulate and encourage the designing of modest type homes at reduced cost without sacrifice of comfort and convenience or sound construction and reasonable maintenance expense. FHA advocates reduction of building costs by effective space economy.

Sewage disposal plans develop rapidly

Supplementing a recent report by the U. S. Public Health Service which said that American cities at present need a total of more than $1,583,000,000 worth of sewage works, many cities last week reported further action on their own plans.

The USPH report (*ENR* June 20, vol. p. 949) was based on a survey of 3,850 communities with populations of 200 or more. The total figure represents actual current needs as estimated by the government agency.

Individual plans reported during the week included:

Public Works Commissioner Fred M. Ashley of Fresno, Calif., said that he would ask bids within 60 days on a $1,350,000 disposal project for the city. The work will include construction of a treatment plant, a new outfall sewer for the storm sewer system, concrete lining of existing canals and land leveling at the present sewer farm.

In Pennsylvania, 74 communities, including Pittsburgh, and 79 major industries have asked the Allegheny County Sanitary Authority to prepare plans for controlling sewage discharged into nearby rivers. A spokesman for the Sanitary Authority said that office and engineering detail on the planning work will take about 18 months.

At Atlantic Beach, Fla., councilmen rushed legal steps and engaged consultants to assist them in preparing plans for a sewage disposal system, and at Nashville, Tenn., the City Board of Administration authorized a call for new bids on a combined project to rebuild the Beniamin Bowl storm sewer and the Sunset storm sewer both of which suffered from lack of maintenance during the war.

Dean Van Ness, city manager of Moberly, Mo., reported he had received a report on an engineers' survey for expansion of the city's present sanitary and storm sewer system, to cost about $246,000.

At Cleveland, Ohio, city, Cuyahoga county, and state officials met to consider means by which the pollution of the Cuyahoga River and of Lake Erie can be stopped. At present the city does not have sufficient capacity in its own disposal plant to take care of the many industrial plants bordering the river and lake front. City experts said that the total industrial dumping into the Cuyahoga daily is nearly as much as the total sewage processed by the city's three plants.

Survey Chattanooga system

Officials of Chattanooga, Tenn., authorized negotiation of a contract for $137,500 to finance a planning survey of the city's sewerage system. Recent passage of a state stream pollution control bill makes it necessary for the city to begin work on elimination of sewage in the Tennessee River and Chickamauga Creek. The planning survey will also map a modern sewer system for the city.

At Toledo, Ohio, M. L. Curtis, engineer for the city's sewer division, revealed a $15,000,000 planned storm sewer system which would take ten years to complete. Plans are completed and ready for bids on projects costing $1,240,000 while projects estimated at $3,425,000 are already in design stages.

The environmental sanitation division of the California department of health announced purchase of a laboratory truck to be used to study disposal of sewage, testing of water supply and for emergency and disaster use. The 2½-ton, 10-wheel, completely equipped vehicle was purchased from the War Assets Administration at a cost of $1,614.

In Minnesota, the State Water Pollution Control Commission reported that of 734 cities with populations of 500 or more, 209 communities had sewers and sewage treatment plants, 111 communities had sewers only, and 414 communities (most of these in the less than 3000 population class) had no sewers or other facilities at all. The board said that 91 of the communities are already taking some action toward installation of new or improved sewage treatment facilities.

NO BUILDING IN SACRAMENTO FLOODWAYS — PLEASE!

Residents of California's upper Sacramento Valley have been warned by the Bureau of Reclamation against erecting buildings or making other improvements in the natural overflow channels of the Sacramento River.

Bureau officials explained that Shasta Dam has been so successful in cutting down flood damage in the last two years that property owners along the river are considering making use of the channels. They pointed out that this practice might prove disastrous should there be a repetition of some of the large floods which have occurred in the valley in the past.

Releases as high as 80,000 cu. ft. of water per second may have to be made from the dam to maintain sufficient flood control space in the reservoir, the bureau said. Use of the lowlands must be based on the assumption that such releases might be made each year.

Power company seeks Clark Hill rights

The Savannah River Electric Co. last week announced it was filing an application for Federal Power Commission renewal of its license to construct and operate the $40,000,000 Clark Hill Dam, five miles above Augusta, Ga.

The dam was also proposed for construction by the Army's Corps of Engineers (*ENR* June 13, vol. p. 902), and Brig. Gen. James B. Newman, division engineer at Atlanta, countered the Electric Company's announcement with the flat statement that the Army will "strongly oppose" private development of the facility.

The dam would be 200 ft. high and 5,540 ft. long, of concrete masonry construction, with rolled-earth sections extending into the hillsides at either side. A power house with an initial installation of 160,000 hp. is planned.

The Savannah River Electric Co. was formed for the purpose of developing the project, and received an FPC license in 1928. It proceeded with engineering work and acquisition of the land, but construction plans were halted in 1931 because of loss of potential electrical load due to the business depression. The utility, by agreement with FPC, surrendered its license in 1932. It now seeks to renew this license and proceed with construction.

Meanwhile, Army Engineers during the past year received $5,500,000 for work on Clark Hill, and recently let a contract to W. T. Anderson of Thomson, Ga., for $193,487 for construction of 4.2 miles of railroad. Before the recent order curtailing federal construction, it had been planned to let a contract by November for the Tainter gates, and for other work.

Preston Arkwright, chairman of the Georgia Power Company and President of the Savannah River Electric Co., said his organization was ready to begin construction immediately, if a license is granted by the federal agency.

Spokane gets state aid for new sewer project

Gov. Mon C. Wallgren of Washington has turned over a $1,050,700 check to Spokane as the state's share of the cost of a $3,700,000 interceptor sewer and disposal plant in the city.

The grant was made from a $10,000,000 reserve fund set aside for cities to use in improving utilities. The rest of the cost will be met through a bond issue and from municipal surpluses.

Fishing interests oppose more Northwest dams

Opposition to construction of additional dams on the Columbia, Willamette and Snake rivers was voiced by commercial and sports fishing interests at a recent hearing held at Portland, Ore., by a U. S. House of Representatives subcommittee.

Proponents of dams for navigation, power, reclamation and flood control did not make a formal presentation at that time, contending that advance notice of the meeting had not been given. They were allowed 30 days in which to file written statements.

The subcommittee, headed by Rep. C. O. Bland of Virginia, chairman of the House Merchant Marine and Fisheries Committee, was told by Merle Chessman of Astoria, Ore., publisher and chairman of the Columbia River Fisheries Development Association, that 75 per cent of the fish spawning areas in the river system have been destroyed. The fishing industry, he said, does not oppose necessary river improvements but does object to "unnecessary projects" that destroy fish runs and spawning beds.

James H. Cellars, secretary of the Columbia River Salmon and Tuna Packers Association, contended that navigation improvements on the Columbia are too costly to repay interest. The program planned provides for 13 new dams on the Columbia and tributary rivers.

Rep. Henry Jackson of Washington urged a cooperative approach to the problem, saying legislation alone could not settle the issue. He urged that a general policy of river development be worked out among government agencies and representatives of fishing, hydroelectric power, navigation, flood control and irrigation interests.

Begin first structure at East Boston Airport

Ground was broken recently at the Logan International Airport at East Boston, Mass., for a $1,000,000 operating base for Northeast Airlines. The buildings, to house about 1000 employees, will include space for traffic, dispatching, research, maintenance, overhaul and other departments of the company's main operating base.

The first operational unit of this type to be built in New England, the base will be also the first permanent building erected in the final overall plan for the Logan Airport. The first unit to be constructed will be a hangar 180 x 160 ft., and office building and laboratories, 300 by 50 ft., three stories high.

Houston building strike remains unsettled

The long-standing controversy between the Houston Building Trades Council and the Associated General Contractors at Houston, Tex., remains unsettled with about $100,000,000 worth of construction work halted and 10,000 workers thrown off the job. Some of these men are leaving Houston to find work.

The latest attempt to settle the strike is a compromise proposal made to both sides by the Council of Veterans Organizations of Houston. This proposal was drawn up by the Council of Veterans Organizations after three long meetings with both the Houston Building Trades Council representatives and the Associated General Contractors representatives, the last of which meetings was held on Aug. 14. This compromise proposal has not been made public.

On Aug. 16, the Associated General Contractors announced that they would accept the compromise proposal. So far, the Building Trades Council has not accepted it but has declared that it will continue to study the compromise proposal for a few more days.

Meanwhile, one of largest building materials black markets reportedly is flourishing at Houston with $142.50 per thousand feet oak flooring selling for as much as $300; wood siding for as much as $160 per thousand feet; $7.25 per yard ready-mixed concrete for from $16 to $25 per yard; $45 per thousand feet sheetrock for as much as $100; rough lumber for as much as $125 per thousand feet; gravel from $4 to $6 per yard and sand for $3 per yard; and $15 window sash for $25 to $35.

The strike has caused the weekly loss of $1,000,000 worth of construction payrolls, according to Warren S. Bellows of the Warren S. Bellows Construction Co.

Dallas, Texas, pushes $10 million road project

The Texas State Highway Department will open bids Aug. 22 for initial construction of the first section of the planned $10,000,000 Central Boulevard project for Dallas, Texas.

Work is expected to start some time in October on the first phase of the project—an overpass at Hall St. and Central Ave., to cost about $240.000.

Meanwhile, city officials announced that they would proceed with clearing of right of way for the second and third sections of the long-planned expressway, which will cut through the heart of the city to expedite traffic movement.

Defer housing workers from military service

Selective service re-issues order exempting craftsmen, college teachers and advanced students from Army call

The national headquarters of Selective Service in Washington, D. C., has amended Local Board Memorandum No. 115—which was re-issued July 22—to make it possible for construction workers engaged in the home building trades and in the 19 to 29 age class to be deferred from military service. The amended order also permits teachers and advanced college students in engineering and the physical sciences to be deferred.

The National Housing Agency will be the certifying agency for deferment of the home building workers. Two classes of workers will be deferred under the amended regulations. These are:

(1) Skilled workmen in the home building trades, where shortages of such men have been established, provided such persons have had at least three years of training and experience in the building crafts, such as bricklaying, plastering, plumbing and carpentry, and it can be established that the loss of such personnel will delay or immediately threaten to delay the Veterans Housing Program.

(2) Managerial or supervisory personnel with a minimum of three years' experience in home construction.

Forms to be used

Employers wishing to obtain deferment for home building should use form 42A (special revised) in triplicate for each individual case. The forms should be filed with the National Housing Agency, Washington 25, D. C.

Where colleges and universities wish to obtain deferment for members of their teaching staffs, they can use form 42A, but it must be submitted to the United States Office of Education, Temporary Building M, 26 and Water Streets, N.W., Washington 25, D. C.

Approval for deferment of scientific personnel engaged in basic research in engineering and the physical sciences must be obtained from the Office of Scientific Research and Development, 1530 P St. N.W., Washington 25, D. C. Form 42A must also be used for this class.

Once deferment for a worker has been certified by the necessary agency, that agency will forward the original and the duplicate copy of the application to the national headquarters of Selective Service, and retain the third copy. After the original and duplicate have been processed by the national office, they will be forwarded to the local draft board of the man involved, which then defers the worker by placing him in class 2-A.

ENGINEERING SCHOOL NEWS

Faculty changes at the University of Florida—Other personal items —The 5-year course at Ohio State proves successful

Prof. C. D. Williams, head of the department of civil engineering at the University of Florida has announced the following additions to the teaching and research staff:

Harrison D. Comins, formerly at the University of Missouri and most recently with the headquarters of the ASCE in New York, to be assistant professor in civil engineering. Professor Comins will have charge of the development of engineering materials.

Stephen A. Derry, formerly president of the Derry Plan, industrial and civil engineering organization of Louisville, Ky., will be assistant research civil engineer. He has been assigned duties in the development of Florida mapping and will teach city and regional planning. Derry served as a major in the Army Engineers during the war.

William L. Sawyer, on leave from the university and on active duty as a commander in the Civil Engineering Corps of the Navy, will return in September as professor in civil engineering. His field is primarily in structures.

Robert Franklin has joined the civil engineering faculty as an instructor. He is a graduate of the University of Southern California and has just been released from overseas duty in the Army.

Prof. D. L. Emerson, who has been on the staff of the Engineering and Industrial Experiment Station, will have charge of the sanitary and public health engineering courses and research.

Earle B. Phelps, professor emeritus of Columbia University, will rejoin the University of Florida staff in November as a research sanitary engineer.

Wilson T. Calaway, sanitary chemist, recently became assistant in sanitary research. His work had previously been with the water department of West Palm Beach. He has been assigned duties in the pilot plant sewage treatment research.

L. J. Ritter, assistant professor, is in charge of soil mechanics and highway engineering.

Arthur N. Winsor, graduate of the Colorado School of Mines and more recently a graduate student in industrial engineering at the University of Florida, will be in charge of sophomore surveying.

The first year of operation has seen the 5-year engineering curriculum at Ohio State University, Columbus, "even more enthusiastically received than had been anticipated," according to Dean Charles E. MacQuigg. Although students who had started engineering courses before being called to military service have a choice, until October, 1947, between the 4-year and 5-year programs, Dean MacQuigg reported that a surprising number of these men have elected the longer course upon their return to school. All new engineering students must now take the 5-year course.

The Board of Regents of the University of Hawaii has appointed W. J. Holmes, Capt., USN Ret., as dean of the College of Applied Science, University of Hawaii, Honolulu, T.H., replacing Arthur R. Keller, who has reached retirement age. During the war, Dean Holmes served on the staff of Admiral Nimitz and was awarded the Legion of Merit Medal and the Distinguished Service Medal.

Joseph N. Scanlon, director of research and engineering for the United Steelworkers of America, C.I.O., has been appointed a lecturer in the department of economics and social science at Massachusetts Institute of Technology.

Ellis Danner, graduate of the college of engineering, University of Illinois 1930, has been appointed assistant professor of civil engineering under W. C. Huntington, department head. During the summer he taught the classes scheduled for Prof. J. S. Crandell, who has been ill, but in the fall he will teach highway engineering. During the war he attained the rank of lieutenant colonel; then served for a while at the university, on ASTP work.

Enrollment of new students will be limited this fall if necessary.

Capt. Allen R. Deschere, now with the Army Ordnance Department at the Aberdeen proving grounds, Maryland, has been appointed assistant professor of mechanical engineering at the University of Colorado, President Robert L. Stearns has announced. Captain Deschere was graduated from Lehigh University. Prior to joining the Army, he was an industrial engineer for three years with the DuPont Co. at Penns Grove, N. J.

Dean Robert L. Sumwalt of the school of engineering at the University of South Carolina was awarded the honorary degree of Doctor of Science recently by the University of Delaware.

Prof. Albert F. Seipers is to be dean of the technical college of Bradley University, formerly Bradley Polytechnic Institute at Peoria, Ill.

Hugh Patterson McKnight, of Wilkinsburg, Pa., recently discharged from the Navy, has been named assistant chairman of admissions of Carnegie Institute of Technology, it has been announced by Robert E. Doherty, president.

***Olentangy Dam Work Progresses**—A general view of the site of the $5,000,000 Delaware Dam, on the Olentangy River in Ohio, where crews of Johnson Drake and Piper, contractors, have started pouring concrete into forms that will make up the east wing of the dam. The dam will form a 16-mile lake to aid in flood control.*

Wide World Photo

RANDOM LINES *from an editor's notebook . . .*

In which ENR's editor ends a vacation trip to sit in on hearings over advisability of a second San Francisco Bay crossing

Ever since the California Toll Bridge Authority—owner of the famous San Francisco-Oakland Bay Bridge—asked the California Department of Public Works (about six months ago) to investigate possible sites for a new crossing to relieve congestion on the present structure, engineering, business and political circles in the Bay area have buzzed with talk of possibilities and proposals.

When Congress ordered appointment of a joint Army-Navy board to hold hearings on the matter, local newspapers relegated the Paris peace conference to inside pages, a great convention hall in the city auditorium was made ready, and proponents of bridge, tunnel and dredged fill pulled out their plans and prepared for battle.

The event was too good to be missed, and the visiting editor—ending a western vacation tour with a business trip to the West Coast—reserved a seat for the opening performance on August 12. The report on the earlier part of the tour, incidentally, is postponed because of the timeliness of the bridge hearing notes.

Why the bridge hearing was called was immediately made plain by the Army-Navy board chairman, Brig. Gen. Garrison H. Davidson, to the audience of some 300 persons that assembled on the first morning. It was to investigate the need for a new San Francisco Bay crossing by weighing its effect on the national defense and the peacetime economy of the region, and to recommend in a confidential report to the secretaries of War and Navy the solution considered best. A large array of speakers was on the program. Those who contributed most significantly were F. W. Panhorst, state bridge engineer, who is in charge of California Toll Bridge Authority's studies; John Reber, who has a plan for using great rock-faced dredged fill causeways (*ENR* July 11, vol. p. 56) and his engineer advisor, L. N. Nishkian; and Glenn Woodruff, consulting engineer, retained by Alameda County.

It can be said for the hearings (*ENR* Aug. 22, vol. p. 222) that they were conducted with strict adherence to time schedules, as befits a military tribunal, and were encumbered with a minimum of "for-the-record" speech making. Only John Reber, with a grandiose plan for converting the upper and lower arms of San Francisco Bay into fresh water lakes by dams which would serve as road and rail causeways talked much over 15 minutes, and his two-hour discussion received rapt attention and generous applause. Without doubt the bold regional-development thinking of this sincere layman and his tenacious promotion of his ideas over nearly three decades appealed to the hard-boiled engineers and city planners. They were glad of his opportunity to speak his piece. If the truth were known, most of them were probably present just to hear him.

Mr. Reber's background as a school teacher and director of amateur theatricals stood him in good stead as he transformed San Francisco and the cities across the bay into the most modern and efficient metropolitan area in the world. It has been said of the Reber Plan that "it has everything," and Mr. Reber proved this characterization is no mere figure of speech.

The Reber plan

Starting with the fresh water lakes as the basic element of the plan, he told how they would remove the unsightly tidal flats, create new industrial and residential areas, provide unlimited water supply and perhaps improve the climate; connected by a canal, with locks furnishing egress and ingress to the bay, the lakes would also be great tide-protected shipping basins. He described his plan for the dredged-fill dams across the bay whose rock facing would be obtained from excavating great underground airplane hangars and oil and gasoline reservoirs in the surrounding hills. And he told how the south dam, 2,000 ft. wide, would accommodate many lanes of superhighway, multiple tracks for transcontinental trains and a huge airport. Concluding with arguments as to the military defense advantages of the plan, he pointed out that if a 2,000 ft. top width for the dam were shown to be vulnerable to atomic bombs the width could be increased to a mile if necessary. It was a masterful presentation of a challenging plan, but it is this observer's opinion that it made few converts.

Suggest alterations

For one thing, the Reber Plan went far beyond the scope of the hearing, which was concerned only with a traffic crossing of the bay. Perhaps sensing this fact, L. N. Nishkian, consulting engineer, who has interested himself in the Reber Plan, urged that the south dam of the plan be altered to a causeway and tube, the latter under the ship channel. This would provide for highway and rail traffic. The estimated cost of $70,000,000 is less than for any of the bridge or tunnel estimates submitted by Mr. Panhorst, state bridge engineer, but it was challenged by Glenn B. Woodruff, consulting engineer in his report for Alameda County, as being considerably less than half what the facility would probably cost. Here, in any event, was something for the Army-Navy board to get its teeth into.

Throughout the hearing, the idea of bringing transcontinental passenger trains into San Francisco cropped up again and again. All of the public officials and most of the business interests spoke in favor of a bay crossing that

***Consider New Bay Crossing**—Meeting as a joint board to hear arguments in favor of a new San Francisco Bay crossing (ENR August 22, vol. p. 222) are: Col. George Mayo, Col. Edwin H. Marks, Brig. Gen. Garrison H. Davidson (the senior member, acting as chairman of the board), Commodore Lewis N. Moeller, Capt. Fred C. Fluegel and Capt. James E. Baker.*

would carry tracks. The railroad companies themselves, however, were conspicuous by their absence; military commanders in the area saw no defense advantage in more rail facilities since the San Francisco peninsula is adequately served from the south and southeast; Mr. Woodruff argued that the cost of rail facilities was far in excess of what transcontinental rail passengers could afford to pay for; and there was general agreement that highway tolls should not be expected to contribute to the cost of these rail facilities. It looked pretty dark for San Francisco's dream of being a transcontinental rail terminal when the best reasons proponents could offer was that the city "wanted" and "deserved" this distinction.

Location difficulties

Perhaps the most significant statement of the hearing was made by Mr. Panhorst when he reported that the California State Toll Bridge Authority's studies indicated that a low level bridge that would accommodate rails could only be built in the south part of the bay near Hunters Point and that such a bridge would divert only 5 percent of the traffic that wants or will want to use the present Bay Bridge. Since such highway traffic must pay for the new crossing a location nearer the present bridge is suggested, as well as a high level bridge upon which rail traffic could not be accommodated.

Of significance also on the matter of location was the statement of Ralph G. Wadsworth, city engineer of San Francisco, that the San Francisco terminus of a crossing should not be north of Protrero St. because of the traffic congestion it would cause. This would place the new crossing south of the present bridge and rule out the several Telegraph Hill locations listed in Mr. Panhorst's studies.

These details will of course have to be settled locally—and probably in the end by the California Toll Bridge Authority whose revenue bonds seem to offer the only means of financing a new crossing. On this score, one might even question the necessity for holding the hearing for the only other basic question is whether the War Department will approve a bridge over San Francisco Bay and that was answered affirmatively when the present Bay Bridge and the Golden Gate Bridge were permitted to be built. Now, as before the hearing, all that needs to be done is to submit a definite proposal to the War Department for a ruling on whether it obstructs navigation. Still, the Army-Navy inquiry provided the opportunity for everyone to be heard. That is democracy at work, and is as it should be and as Americans like it.—*W.G.B.*

Combine gets $30 million Philippine job

The United States Engineers have awarded a large cost-plus-fixed-fee contract for all construction in the Philippine Islands to Johnson, Drake and Piper, Inc., Minneapolis, Minn., N. Y. City, and Oakland, Calif.; the Utah Construction Co. of Ogden and Salt Lake City, Utah, and San Francisco, Calif.; and Grove Shepherd Wilson and Kruge, Inc., of N. Y. City, Washington, D. C., and St. Louis, Mo.

These firms, which have had wide experience on Army and Navy construction in the United States and abroad, will operate as a joint venture to be known as Drake-Utah-Grove.

The work is extensive in scope—the initial contract being in excess of $30,000,000—and is expected to continue for several years. In general, the work is to consist of the erection of permanent facilities to replace certain of the Army's temporary "table of organizations" types of construction.

Robert Bayard

The work will be under the general direction of Lieut. Gen. R. A. Wheeler, Chief of Engineers in Washington, D. C., and will be administered by Brig. Gen. J. S. Bragdon, in charge of all military construction. This specific contract, as well as others in the Western Pacific, will be supervised by Brig. Gen. L. D. Worsham, Division Engineer, Western Ocean Division, who has established his division headquarters, together with his contractors and architect-engineers, in buildings formerly occupied by the Marinship Corp. at Sausalito, Calif. The Philippine work will be under the immediate direction of District Engineer Col. Clarence Renshaw, with headquarters in Manila.

Edgar White, general manager, and Philip Grove and Robert Bayard, of the executive committee of the joint venture, have just returned from a 4-weeks reconnaissance trip by air covering all the Philippine work. They were impressed with the tremendous task of rehabilitation which faces the Filipinos. They had interviews with President Roxas, American Ambassador McNutt, and representatives of leading business and banking interests. All of these authorities agree that this work will bring great benefits to the Philippine people.

Philip Grove

As far as possible, Filipino labor will be used on this work. However, it is anticipated that more than 1000 craftsmen, equipment operators, and administrative and supervisory construction workers will be recruited in the United States for service abroad under this contract. Recruitment will be through the U. S. headquarters of Drake-Utah-Grove, Box A, Sausalito, Calif., but application forms may be obtained at the offices of Grove Shepherd Wilson and Kruge, Inc., in New York City, St. Louis and Washington; at Johnson, Drake and Piper, Inc., in Minneapolis, Minn., New York City, and Oakland, Calif.; and at offices of The Utah Construction Co. located in Ogden and Salt Lake City, Utah, and San Francisco, Calif.

Big road building program for the island of Hawaii

Hawaii has a large road building program ahead that may use a good share of the $2,000,000 in federal aid money appropriated to the territory for the year beginning July 1.

In a month-long road survey and traffic census, John L. Padgett, territorial highway department civil engineer, found that roads are inadequate. He declared that 35 miles of the 47-mile Hamakua coast road will have to be rebuilt as a 2-lane artery, and that bridges of 6-ton capacity are carrying 50-ton loads, and are inadequate in strength, width, location and approaches. A cut-off road is needed to skirt the town of Hilo and relieve it of commercial traffic en route to the airport and wharves, he added.

To Padgett's recommendations, Gov. Ingram M. Stainback added one for a scenic road to the top of the crater of Mauna Loa as a tourist attraction. The governor suggested that much of the road might be built by making use of prison labor.

Easing of traffic problems may be accomplished through the Army's offer to give the 40-mile "Saddle Road" built across the island as a military expedient in 1942. This highway eliminates winding coast roads and halves the trip from Hilo to Kona. Legal aspects of the transfer and maintenance of the road are still being studied by the territorial government, which, however, definitely favors the project.

MEN AND JOBS

Bennett M. Saunders, Seattle, Wash., has been appointed field engineer for the Seattle district offices of the Portland Cement Association. After attending the University of Washington, he served as captain with the 41st division in Australia and the South Pacific.

Walter A. Ewell, formerly assistant district mechanical engineer for the Austin Co. at Oakland, Calif., has become senior sanitary engineer with the Pacific Island Engineers, design agents and consultants for the U. S. Navy in the development at the Pacific Islands of Guam, Wake and Marshall Islands and in the Philippines. **J. H. Lehman** will assist Mr. Ewell as associate sanitary engineer.

Edward M. Howard, formerly a commander in the Navy Civil Engineer Corps, has been appointed district engineer for the six New England States for the Asphalt Institute.

Frank Stanton Hardee, lieut. colonel, who was graduated in civil engineering from North Carolina State College has been separated from the Army and entered the building supply business at Kaplan, La. During the war, he was post engineer at the New Orleans, La., Army Air Base.

Robert F. Wood has been appointed bridge engineer for the Reading Railroad at Philadelphia, Pa., succeeding **Percival S. Baker** who retired recently. Mr. Wood, a graduate of Lehigh University, started with the Reading as a rodman and became assistant engineer at Philadelphia in 1927.

William Emerson, city engineer at Watertown, S. D., has been named superintendent of utilities also.

Jack Wharton, of Paducah, Ky., has been appointed senior highway engineer at Paducah for the State Department of Highways.

Personnel changes in the Pennsylvania Department of Highways have been announced as follows: Appointments—**Frank R. Clough,** of Wallingford, resident engineer in District 6, Ardmore; **Harvey H. Clevenger,** McConnellsburg, project engineer, District 9, Hollidaysburg. Resignations—**Edgar L. Frazee,** Enon Valley, resident engineer, Franklin; **James H. Washburn,** Wilkes-Barre, project engineer, Scranton.

M. J. A. des Trois Maisons has been appointed division engineer for the Canadian National Railroad at Montreal.

William H. Klingner, of the Quincy, Ill., consulting engineering firm of McCann & Klingner, will serve as engineer for the city temporarily.

Col. Joseph D. Arthur, Jr., who was appointed harbor engineer for Baltimore, Md. last June, has resigned as assistant engineer commissioner for the District of Columbia, effective August 15. His retirement will mark the end of a 35 year carreer with the U. S. Army.

A $1,548,000 contract for excavating the north section of the Main Canal for the Columbia Basin project is under discussion here by (left to right) Eugene Williams, job superintendent and William Foss, general superintendent for J. A. Terteling and Sons, Boise, Idaho, contractors, and E. J. Nieman, resident engineer for the Bureau of Reclamation on the project.

After 30 years of supervising construction and maintenance of locks and dams on the Ohio River in the Cincinnati district, **James E. Rice,** 67, retired from service with the U. S. Engineer Department recently. Mr. Rice entered the service in 1916. He will be succeeded at Cincinnati by **Granville Bondurant,** of Rising Sun, Ind.

Col. Heston R. Cole has taken over his duties as Duluth district U. S. Army Engineer, succeeding **Col. Kenneth M. Moore,** who was district engineer since last November. Colonel Moore is due to leave soon for service in Japan. A native of Port Morris, N. J., Colonel Cole is a graduate civil engineer from Lafayette College, Easton, Pa., and has served in the army continuously since 1917.

C. A. Cochran, Robert Lassiter, Jr., and **E. M. McManus,** all of Charlotte, N. C., have organized the general engineering and construction business of Coddington Construction Co.

Lee McAllister has been appointed engineer in charge of the Project Planning office of the Department of the Interior at Salem, Ore., succeeding **C. C. Fisher,** who retired August 1. An Oregon State College graduate in 1924, Mr. McAllister joined the bureau in 1941 as an engineer on the Central Valley project in California.

Orville A. Hunt is the new county engineer for Clay County, Minn.

James E. Fox, Wooster, Ohio, city engineer for 15 years, and recently returned from serving overseas in the Navy, has resigned, and plans to enter private business in that city.

G. L. Dubber, former colonel, Army Engineer Corps, Southwest Asia Command, is now Federal Public Housing Authority project engineer supervising construction of 282 veterans housing units on five city-owned sites in Toledo, Ohio, replacing **J. S. Wilkinson,** transferred to the National Housing Agency.

E. L. Kipp, captain, who was over five years in the Corps of Engineers, has been appointed city engineer of Daytona Beach, Fla. He is a graduate of Alabama Polytechnic Institute.

J. D. Rhyne, municipal employee at Hickory, N. C., since 1939, has been named city manager to succeed **Ralph E. Smyre,** who has resigned after seven years to enter private business.

John L. Warboys, an engineer for the General Land Office of the Depart-

ment of the Interior for the past 30 years, retired recently to live at his home in Robles Del Rio, Calif.

William E. Nichols, recently discharged from the Army, has accepted a position with the Brown Engineering Co. at Des Moines, Iowa.

Ralph Sprungham, major, who served three years with the Army Transportation Corps, has resumed his duties as senior traffic engineer at Minneapolis, Minn.

O. G. Hittle, district engineer for the Bonneville Power administration's Lower Columbia district office, has been appointed acting manager for the district. With his new duties he will continue as district engineer pending the appointment of a permanent district manager.

Thomas E. Black, 1938 engineering graduate of Washington State College, has been named district engineer for the Bonneville Administration's Mid-Columbia district.

J. V. Lamson has been appointed district engineer for the Puget Sound office of the Bonneville Power Administration, replacing **Victor Muzsnay** who is transferring to Bonneville's Portland, Ore., engineering division. Following his graduation from the University of Washington, Lamson did engineering work for the General Electric Co., Schenectady, N. Y., and the Milwaukee Railroad in Seattle.

Tom Sales, a recent civil engineering graduate of Duke University, Durham, N. C., is now associated with the Tidewater Construction Co., Norfolk, Va.

Herbert H. Wheaton, for the past four years a staff member of the radiation laboratory, Massachusetts Institute of Technology, has returned to Fresno State College, California, to resume his duties as professor in the department of mathematics and engineering. A graduate of the University of California and (1932-33) Freeman Scholar in hydraulic model studies in Germany for the American Society of Civil Engineers, Mr. Wheaton left his post at Fresno in June 1942 to take part in research and development programs on radar at MIT.

Earl O. Mills of St. Louis, Mo., a planning consultant, has been engaged by the city of Portland, Ore. to conduct an intensive survey of the city's street and zoning problems.

William F. Wolcott, Jr. has been named office engineer and acting head of the city engineering department at Asheville, N. C., succeeding **C. D. Ives** who resigned recently to enter private business.

G. M. C. Lucas is now supervising engineer for the J. A. Jones Construction Co., Inc., Charlotte, N. C. and Atlanta, Ga., after his recent release from service as a captain in the Corps of Engineers. Before entering the Army, Mr. Lucas was a member of the firm of Olson & Lucas Construction Co. of Salt Lake City, Utah and for eight years operated the Lucas Construction Co. of Albany and Ogdensburg, N. Y.

Col. Mark C. Fox, recently in charge of engineering, construction, procurement and maintenance on the electromagnetic plant at Oak Ridge, Tenn., and for three years a key construction figure for the Manhattan District, has joined the Thompson & Street Co., general conractors, of Charlotte, N. C. Colonel Fox is now project manager on the $7,500,000 Beaufort Naval Hospital at Beaufort, S. C.

Thomas J. Reading, of Merriam, Kan., has been released from naval service to take the post of head of the U. S. Engineer Soils, concrete and chemical laboratories now located at Kansas City, Mo.

R. R. Lunoe, formerly civil engineer in the design department for the Tennessee Valley Authority, is now head of the civil and structural section of the engineering division of the Clark Hill project on the Savannah River in Georgia.

J. Fred Offutt, an employee of the Baltimore, Md. county highway department for the last 23 years, has become acting roads engineer and head of the department to succeed **Joseph D. Thompson,** who resigned recently.

Lt. Col. George L. Lemon is now project engineer for the Mississippi highway department engaged in work preliminary to construction of a bridge over the Yazoo River on U. S. Highway 61 near Vicksburg. A graduate of the Mississippi State College in civil engineering, he served for more than five years in camp construction and Post Engineer work at Air Corps stations throughout the United States.

I. A. Cooper, a civil engineer, has joined the staff of the Charleton Laboratories, analytical and consulting chemists of Portland, Ore., to take charge of testing of concrete and other construction materials.

L. L. Petticord, Sedgwick county, Kan., engineer, has resigned his post.

Norman D. Kenney (left) president of the Maryland section, ASCE, and senior associate of Whitman, Requardt Associates, takes a busman's holiday with Clarence C. Neher, of the Baltimore District office, U. S. Army Engineers, to visit the naval ordnance plant at White Oak, Md.

A. W. Fuchs (left) chief of the milk and food section, U. S. Public Health Service, and Ray Ranieri, chief of the PHS engineering and surveying unit, look over a new Naval ordnance laboratory now under construction at White Oak, Md.

Marcel Mary, regional chief engineer of French Public Works, on a tour of U. S. engineering works looks over a sheep's-foot roller at Anderson Ranch Dam, in Idaho. Explaining the machine is Edwin D. Henry, in charge of inspection of earth placing activities at the dam.

Pennsylvania is unable to build schools now

Oregon, too, announces that costs force postponement of major building plans

New school building construction to cost nearly $200,000,000 is urgently needed throughout Pennsylvania but high costs make building impractical at this time.

The Pennsylvania State Department of Public Instruction disclosed this following a state-wide survey.

The department is advising against any building now except in unusual cases after its survey disclosed costs averaging from $12,000 to $15,000 per classroom or an average of twice the cost after World War 1. The department said the lowest bid in one recent instance was $20,000 per classroom.

Another survey disclosed that the construction of 715 new school buildings by various school districts throughout the state would cost $92,921,000 at present rates and that the school districts lacked $47,651,000 in legal borrowing capacity to build them.

Under Pennsylvania law a school board may borrow only up to seven per cent of the assessed valuation of real property in the one specific district.

A current financial barrier in many cases is that assessments have not been changed in recent years to keep abreast of costs. Thus tax receipts have not risen and the funds in many cases are not available to meet the increased costs.

Oregon postpones plans

Although school districts in Oregon have at least $20,000,000 available for construction projects, high costs will delay the building program another year, Rex Putnam, state superintendent of public instruction, said recently.

Shortage of materials and the reluctance of contractors to bid on school projects are other factors in the delay, Putnam added. He said that in numerous cases where bids had been received for school construction, the bid prices were from 30 to 60 percent above prewar costs.

The Portland school district alone voted $5,000,000 for school improvements recently, and has more than $1,000,000 in its treasury. Many other districts have voted special taxes and bond issues.

In the recent news item about the 1946 edition of the Standard Code for Arc and Gas Welding (*ENR* Aug 1 vol. p. 136) the price was not mentioned. It is 50 cents a copy, and is available from the American Welding Society, 33 West 39th St., New York 18, N. Y.

Plan much new building for Honolulu, T. H.

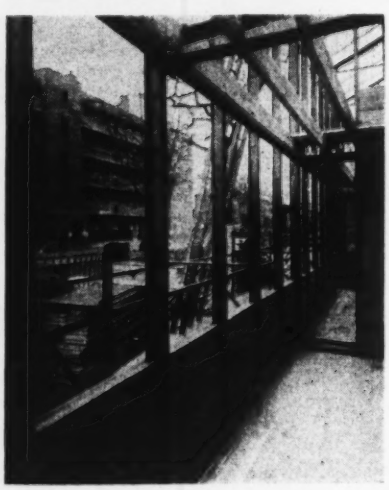
Despite a recent decline in home construction—due, observers said, to inflated land values—ambitious plans for civilian and military developments have been made public at Honolulu, T. H.

A near-surplus of contractors is ready to handle the work—the number of licensed Honolulu contractors having doubled since 1944.

Among the bigger projects planned near Honolulu are:

A $4,000,000 civic center approved by the Navy for the Pearl Harbor navy yard's civilian housing area. Included in the plan are a high school, department stores, fire station, chapel, administration building, swimming pool, playgrounds and business buildings; a $1,000,000 "Market City" in the Kaimuki section of Honolulu that will have 75,000 sq. ft. of floor space and parking for 250 cars; a new suburb in the Wailupe area, including a business district and 650 homes.

An apartment development of 9 to 12 apartments and a combination store and office building, to cost about $700,000 in the Waikiki district; a cooperative development of 90 small homes in the Palolo valley.



***No Brick**—Clay walls are used in construction of a new-type house being built experimentally in England by an organization known as the Cranwell Syndicate—still to be organized formally as a company under British law. Hollow fired clay units, three feet in length and weighing 30 lbs. each, are interlocked into a steel framework of standard steel sections, with the steel taking all stresses. It is claimed that the two-family units will be 100 tons lighter than conventional brick structures, can be erected in three weeks, and will cost about $9,000.*

Calendar of Meetings

NATIONAL

American Public Works Association, annual Congress, Texas Hotel, Fort Worth, Texas, Sept. 22-25.

The Producers' Council, Inc., fall meeting, Hotel Pennsylvania, New York, N. Y., Sept. 25-26.

Building Officials Conference of America, annual convention, Peabody Hotel, Memphis, Tenn., Sept. 30-Oct. 3.

Institute of Traffic Engineers, annual meeting, Deshler-Wallick Hotel, Columbus, Ohio, Oct. 3-5.

Federation of Sewage Works Associations, 19th annual meeting, Royal York Hotel, Toronto, Canada, Oct. 7-9.

American Society of Civil Engineers, fall meeting, Continental Hotel, Kansas City, Mo., Oct. 16-19.

Associated General Contractors of America, Inc., fall Board meeting, Benjamin Franklin Hotel, Philadelphia, Pa., Oct. 21-22.

National Council of State Boards of Engineering Examiners, 25th annual meeting, Hotel Statler, St. Louis, Mo., Oct. 28-29.

American Institute of Steel Construction, annual convention, Del Coronado Hotel, Coronado, Calif., Oct. 28-31.

REGIONAL

American Water Works Association, Southeastern Section, DeSoto Hotel, Savannah, Ga., Sept. 9-11.

American Water Works Association, Western Pennsylvania Section, Roosevelt Hotel, Pittsburgh, Pa., Sept. 12-13.

American Water Works Association, Rocky Mountain Section, La Fonda Hotel, Santa Fe, N. M., Sept. 12-13.

Georgia Water and Sewage Association, annual meeting, in conjunction with 15th annual Georgia Water and Sewage School, Georgia Institute of Technology, Atlanta, Ga., Sept. 16-18.

New England Water Works Association, 65th annual conference, Poland Spring House, Poland Spring, Maine, Sept. 16-20.

American Water Works Association, Michigan Section, Park Place Hotel, Traverse City, Mich., Sept. 18-20.

American Water Works Association, Four-States Section, Brunswick Hotel, Lancaster, Pa., Sept. 27-28.

American Water Works Association, New York Section, DeWitt Clinton Hotel, Albany, N. Y., Oct. 3-4.

American Water Works Association, Ohio Section, Fort Hayes and Chittenden Hotels, Columbus, Ohio, Oct. 10-12.

American Water Works Association, Southwest Section, Buccaneer Hotel, Galveston, Texas, Oct. 14-17.

American Water Works Association, New England Section, Parker House, Boston, Mass., Oct. 17.

American Water Works Association, West Virginia Section, Hotel Morgan, Morgantown, W. Va., Oct. 17-18.

American Water Works Association, California Section, Whitcomb Hotel and Civic Auditorium, San Francisco, Calif., Oct. 23-25.

American Water Works Association, Kentucky-Tennessee Section, Andrew Johnson Hotel, Knoxville, Tenn., Oct. 28-30.

Major express highway planned for Fort Wayne

Completely non-stop north-south, east-west thoroughfares to cost $26 million planned for city

Plans for a $26,000,000 highway construction program for complete non-stop north-south and east-west highways through the center of Fort Wayne, Ind., were disclosed by Governor Ralph F. Gates and state highway officials at a meeting of 300 civic leaders in that city, August 13.

Plans of the state engineers, headed by Carl E. Vogelsang, call for channeling Highways 3, 33 and 27 north to south, and Highways 30, 14 and 24 west to east into a network of non-stop straightaways free of interruption by local or cross traffic.

The program includes an underpass under Nickel Plate Railroad tracks in the center of the city. According to Governor Gates, both the state and federal governments are prepared to begin this underpass construction immediately, as the first step in the state's 10-year highway program.

Of the total cost of the program, the federal government is expected to assume $10,000,000, the state, $10,000,000, and the city and Allen County, $6,000,000. Cost of the Nickel Plate underpass is estimated at $4,500,000, of which the railroad will pay 20 per cent. The survey on which the present plans for the underpass project are based has been completed by the state highway commission and federal engineers at a cost of $30,000.

The new Fort Wayne super traffic program ties in with plans for city beautification. A 300-foot-wide unobstructed area in which the expressway will be centered will traverse the city. Existing paralleling streets will be adapted into service arteries feeding traffic into and out of the expressway.

The block-wide parkway and express trafficway will wipe out large areas of decadent and blighted sections.

A similar safety traffic program is being drawn up for Indianapolis.

Timber lack halts repair of Louisiana bridges

Possibility that many of the 3,550 timber bridges maintained by the Louisiana State Highway Department may have to be entirely closed to traffic was seen last week by Richard Downes, Jr., department purchasing agent.

He added that some bridges may be closed as unsafe for traffic.

Part of timber-access road program completed

The U. S. Forest Service reported last week that about 12 percent of its program for construction of access roads to reach out-of-the-way timber lands had been completed as of Aug. 1.

The program—for which the Forest Service has some $8,500,000 (*ENR* July 25, vol. p. 87)—is expected to make possible the production of 172,000,000 b.ft. of additional lumber during 1946 for use in veterans' housing projects. A total of 1,908 miles of roads is expected to be built or improved in 29 states under the program.

Urge use of gas tax for N. C. highway work

The legislative committee of the North Carolina League of Municipalities has adopted a legislative program to be presented to the 1947 session of the legislature which includes a proposal that the state set aside one cent of the 6-cent gasoline tax for use by municipalities, under their sole direction, in maintaining city streets.

Municipalities in North Carolina get an aggregate of $1,000,000 annually for such work, but expenditure of the funds is limited to streets on state highways and to feeder streets. Under the proposed legislation, the municipalities would get around $3,600,000 annually on the basis of last year's gasoline tax receipts.

Atlanta civic projects assured by 5 to 1 vote

Approval by a 5 to 1 majority for city and county bonds totaling $40,400,000 assures Atlanta, Ga., of civic development projects to provide metropolitan facalities. City bonds will total $20,400,000 while those of the Fulton County will be $20,000,000.

The projects include: For Atlanta, $3,000,000 airport improvement, $600,000 for improvements to the City Auditorium, $300,000 for fire protection, $200,000 for garage buildings, $1,700,000 for libraries, $500,000 for parks, $9,000,000 for new schools, $1,000,000 for a sewage disposal system, and $4,100,000 traffic improvements; for the county, $2,500,000 for courthouse annex, $500,000 for community health and welfare center, $2,000,000 for sewage disposal systems, $1,000,000 for parks, $250,000 for public safety building, $250,000 for garbage disposal facilities, $1,000,000 for airport, and $12,500,000 for traffic improvements.

Industrial expansion on Pacific coast

Two corporations, Fibreboard Products and Johns-Manville Products, have announced West Coast expansion plans totaling $34,000,000.

Fibreboard accounts for $24,000,000 of the amount, with a 3-year program calling for construction of plants in California and Nevada and for expansion at Los Angeles and Portland, Ore.

The biggest project will be a plant on the San Joaquin River near Antioch, Calif., a 2-machine board mill and converting plant. A subsidiary, Glass Containers, Inc., is building another plant at Antioch, and Nevada Silica Sands, Inc., also a subsidiary, will build at Overton, Nev. A power plant will be installed at Stockton, Calif.

Johns-Manville will invest $10,000,000 in expansion of its four plants in the San Francisco Bay area and Southern California. Production will be increased 400 percent at its Pittsburg plant for manufacture of asbestos-cement roofing shingles and siding and its Long Beach rock wool insulation plant. A 200 per cent increase is planned in production of asphalt roofing at Los Angeles.

Gahagan Corp. returns to construction field

The Gahagan Construction Corp., New York City, after having specialized in dredging work for several years, has returned to the construction field and with the Byrne Organization, Washington, D. C., has been awarded a joint contract by Congoleum-Nairn, Inc., Kearny, N. J., for the construction of a felt mill at Cedarhurst, Md.

The work, consisting of the mill and its auxiliary buildings and the installation of all process and mill equipment, will begin immediately and is scheduled for completion in 1947.

Illinois governor favors Mississippi parkway

Governor Dwight H. Green has personally endorsed the proposal for construction of a parkway along the Illinois shore of the Mississippi River, as a part of a proposed 2,500 mile route paralleling the entire length of the river.

The governor's endorsement was read to members of the Mississippi River Scenic Highway Association attending a recent meeting at Grafton, Ill.

OBITUARY

Joseph T. Kiernan, 55, a member of the staff of Ford, Bacon & Davis, Inc., engineers, New York City, died Aug. 20 at Ogunquit, Me. He was graduated from Manhattan College in 1911 and first worked as a valuation expert for several railroads. He served in the first World War and for a time afterwards was with the staff of Day & Zimmerman, Philadelphia engineers.

Edward Colton Spring, 79, engineer and former general superintendent of the Lehigh Valley Transit Co., died Aug. 19. He was for many years associated with the Philadelphia & Western Railway, before joining the Lehigh Valley. He retired in 1932.

Norman Archibald Link, 53, vice president of the Assiniboa Engineering Co. Ltd., Calgary, Alta., died Aug. 12. He was superintendent of construction on the Calgary-Banff highway.

Fred L. Hiss, Sr., 63, construction engineer for the Hinde & Dauch Paper Co., Sandusky, Ohio, and licensed as a professional engineer in 16 states, died Aug. 12 at Sandusky.

Carl Louis Breithaupt, 50, Cleveland, Ohio, consulting engineer, died Aug. 13 at Parry Sound, Ont. He was a consulting engineer for the Prior Chemical Co. of New York, with offices in Cleveland.

Dr. James H. Felgar, 71, dean of the University of Oklahoma College of Engineering, for 31 years, died recently.

Commander Joshua T. Davis, 53, Navy construction engineer on Guam, died in Bethesda Naval Hospital, Md. Aug. 9. He was formerly with Carnegie-Illinois Steel Corp. in Youngstown, Ohio.

Maj. Gerald H. Hoffman, 37, Corps of Engineers, who died while a prisoner of war of the Japanese in May, 1942, has been awarded, posthumously, a citation for Silver Star "for gallantry in action near Tuel River, Luzon, from March 1 to April 9, 1942." During the bitter fighting in Bataan, Major Hoffman, a division engineer, planned and supervised the construction of mine fields along the entire division front while constantly under hostile fire.

Major Hoffman was graduated at Washington University, St. Louis, Mo., in 1930, and at once joined the Army Engineers, serving in many different posts in the United States. He was sent to Fort William McKinley in the Philippines in April, 1941. Later he was assigned to the Philippine Headquarters of the U. S. Engineers, Fort Santiago.

William C. Johnson, 63, city engineer, Belleville, Ill., and a road and bridge contractor, died Aug. 19. He was a graduate of the University of Illinois in 1902.

Stephen Jesse Isabel, 82, Columbus, Ohio, contractor, in charge of construction of several Ohio State University buildings, including the armory, and also of several high schools in the state, died Aug. 20.

Bruno V. E. Nordberg, 62, executive engineer of the Nordberg Manufacturing Co., Milwaukee, Wis., since 1923, died Aug. 19. A graduate of the University of Wisconsin, he was a regent of the Milwaukee School of Engineering and vice-chairman of the Milwaukee Sewerage Commission.

Slight buckling damages Kentucky state building

A seventh-floor interior wall of the new State Office Building at Frankfort, Ky., buckled on July 30.

Sam Morey, architect in charge of the plans for the building and the engineering staff of the division of purchases and public properties examined the damage and reported that the interior finish is of brick construction and, at the point where the bulge occurred, a ⅝ to ¾-in. thick brick veneer was used for a depth of about 27 in. as a facing for the concrete-encased spandrel beam. The cause of the bulge was expansion and the damage was very slight. The replacement of sheared brick was the only repair necessary. No damage was done to the structural support of the building.

CENTENARIAN ENGINEER

William D. Bell, pioneer Ontario, Can., civil engineer, celebrated his 100th birthday on Aug. 12.

Born in Scotland, Mr. Bell went to Canada at the age of 13 and settled in the district of Chesley, Ont., where he still resides.

Among the undertakings designed and completed by Mr. Bell are the waterworks installations at Grand Rapids, Mich., Milwaukee, Wis., and Omaha, Neb.

CONSTRUCTION ACTIVITY

As Reported this week to...
Engineering News-Record

CONTRACT VOLUME

Continental U. S. Only
(Thousands of Dollars)

	Week of August 29 1946	Cumulative 1946 (35 wks.)	Cumulative 1945 (35 wks.)
Federal	$7,448	$514,749	$648,308
State & Mun.	19,671	940,783	218,880
Total Public	$27,119	$1,455,532	$867,188
Total Private	52,786	2,254,573	393,911
U. S. Total	$79,905	$3,710,105	$1,261,099

WHERE CONSTRUCTION ACTIVITY ORIGINATED THIS WEEK

Dollar Volume (Thousands)

Type of Work	This Week	Cumulative 1946 (35 wks.)	Cumulative 1945 (35 wks.)
Waterworks	$2,116	$69,366	$35,416
Sewerage	1,550	67,730	21,440
Bridges	1,077	93,635	22,387
Highways	10,697	542,602	147,137
Earthwork, Waterways	2,285	290,137	33,016
Buildings, Public	8,030	267,803	399,922
Industrial	17,795	693,517	263,686
Commercial	32,723	1,431,379	78,005
Unclassified	3,632	253,936	260,090

NOTE: Minimum size projects included are: Waterworks and waterway projects, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1946 (35 wks.)	Cumulative 1945 (35 wks.)
NON-FEDERAL	$1,124,529	$551,865
Corporate Securities	318,086	114,940
State and Municipal	581,443	273,325
RFC Loans	—	24,600
REA Loans	—	60,000
Fed. Aid Highway	225,000	79,000
FEDERAL	1,374,866	1,049,898
Total Capital	$2,499,395	$1,601,763

ENR INDEX NUMBERS

Index Base = 100		1913	1926
Construction Cost	Sept. '46	360.19	173.14
Building Cost	Sept. '46	272.04	147.66
Volume	Aug. '46	258	113

CONSTRUCTION REPORTS

Bids Asked — Low Bidders — Contracts Awarded

(Daily service also available—Write for details)

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

ELSIE EAVES, Manager *J. A. MAHONEY, Reports* *J. V. McEWEN, M. R. ROESSLER, Statistics*

WATER SUPPLY

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked September 3

Ia., Story City—City, S. James, city clk., water softener unit, auxiliaries, etc.

Minn., Glencoe—City, Selma S. Zavoral, clk., WW imprvs., incl. furnishing and installing 1,000 g.p.m. cap. water supply, pump house bldgs., pump, equip. and water distr. line. Over $25,000. Hitchcock & Estabrook, 521 Sexton Bldg., Minneapolis, engrs.

Bids Asked September 4

N. Y., New York—Dpt. Water Supply, Gas & Electricity, Municipal Bldg., Manhattan Zone 7, hauling, laying watermains and appurtenances in Cliffside, Elbe,- Elizabeth, Mosel, Neckar and Smith Aves.; Elba, Hurlbert, Mace and Quintard Sts.; Howard and Pleasant Cts.; Harbor View, Ledyard and Smith Pls., Old Town Rd., and Butler Terrace, Richmond Boro. Plans deposit $1.

Bids Asked September 6

O., Toledo—County Commr., Courthouse, water supply lines, approx. 6,193 lin. ft. 6 in. and 9,676 lin. ft. 8 in. c.i. water pipe, Class 150, fire hydrants, valves, special castings, etc. Est. $51,941. S. C. McKee, County sanitary engr. CD 8/1—ENR 8/22.

Ont., Sarnia—City, Miss M. D. Stewart, clk., Mayor & Council, supply and erection of elevated steel water tank, 500,000 gal. capacity, 135 ft. high. About $35,000. Gore & Storrie, 1130 Bay St., Toronto, engrs. CD 3/22/45—ENR 4/5/45.

Bids Asked September 17

★**Tenn., Kingsport**—City, c/o city mgr., water sys., c.i. pipe, gate valves, hydrants, traveling screens, pumps, motors, $750,000. Wiedeman & Singleton, C & S Bank Bldg., Atlanta, Ga., engrs. CD 4/5—ENR 4/18.

LOW BIDDERS

Calif., Pasadena—City, City Hall, Aug. 15, 20 in. concrete cylinder pipe for water mains, 10,767 ft. from Midwick Dr., Altadena to Lake Ave., 3,850 ft. from Atlanta St. to Lincoln Ave., from American Pipe & Constr. Co., 4635 Firestone Blvd., South Gate. **$110,793.** CD 4/11—ENR 4/18.

Ill., Canton—City, K. Sporer, clk., July 31, 10,800 ft. 4 in., 1,670 ft. 6 in., c.i. water mains, 16 fire hydrants, etc., Alt. A from E. J. Fischer, 4134 Westminster Place, St. Louis 8, Mo. **$26,714,** Alt. B and C, from Rees Constr. Co., Quincy, **$26,699.** CD 7/18—ENR 7/25.

Wash., Othello—Town, Town Hall, Aug. 2, 10,000 ft., 4 to 8 in. water distr. sys., from Mullins & Sanden, Moses Lake. **$39,936.**

Tenn., Jackson—City, c/o mayor, exten. water, sewer sys., imprv. streets, from Volz Constr. Co., Ripley. **$247,911.** Hart, Freeland & Roberts, 3 Natl. Bank Bldg., Nashville, engrs.

CONTRACTS AWARDED

Ala., Bessemer—City, WW sys. exten., to Buchanan & Graves Constr. Co., 610-3 Ave., Birmingham. **$69,606.** CD 7/31—ENR 8/8.

★**Calif., San Diego**—City, Civic Center Bldg., Grossmont tunnel, to L. E. Dixon, 609 S. Grand Ave., Los Angeles. **$709,130.** CD 8/9—ENR 8/15.

Fla., Ft. Myers—City, c/o city council, water reservoir; pipeline from city water well to water plant, to Walter Edelblut, Ft. Myers. **$162,902** and **$106,335** respectively. Bids 8/2. CD 7/24.

Ill., Grayville—City, WW and sewerage imprvts., treatment plant, etc., Div. A, to E. C. Rust, 22 N. 10 St., Belleville, **$39,991;** Div. C, to Chicago Bridge & Iron Wks., 332 S. Michigan Ave., Chicago, **$14,890;** Div. D, to Hoop & Howe, Grayville, **$65,880;** Div. F, to Snyder Constr. Co., Vincennes, Inc., **$20,742.** Total $141,503. CD 7/8—ENR 7/11.

Ore., Portland—Powell Valley Road Water Dist., 12110 S.E. Powell Blvd., 650,000 gal. concrete reservoir, to E. E. Settergren, Henry Bldg. **$30,191.** C. E. Carter, Spalding Bldg., engr.

Pa., Phila.—Dpt. P. Wks., City Hall Annex, filter plant imprvs., Upper Roxborough Plant, WWI-305, to Eastern Engrg. Co., 4 N. North Carolina Ave., Atlantic City, N. J. **$152,290.** Awarded 8/15. Bids 8/14. CD 8/7.

Tex., El Paso—College of Mines and Metallurgy, El Paso, c.i. water lines and facilities. Purchase & Hire, **$27,000.** P. McGee, 1st National Bank Bldg., consult. engr. CD 11/3/44—ENR 11/16/44, under Public Bldgs.

Tex., San Antonio—Owners c/o Terrell Bartlett Engrs., 2700 Transit Tower Bldg., c.i. water lines to T. H. Lee, c/o Builders Exchange. **$25,645.** CD 5/23—ENR 6/13.

B. C., Comox—Dpt. Reconstruction & Supply, Ottawa, Ont., replacing water supply line to General Const. Co. Ltd., Granville Island, Vancouver. About **$25,000.**

Que., St. Boniface—Twp. of Shawinigan, J. C. Laperiere, secy., pipe, reservoir, pumping station, etc., to Armand Grenier, 94 7 Ave., Grand'Mere. About **$65,000.** CD 5/22—ENR 5/30.

Que., Port Alfred—Municipality, water sys. to J. R. Theberge Ltd., 7 Main, Chicoutimi. **$35,000.** C. H. Jette, Town Hall, engr.

SEWERS, WASTE DISPOSAL

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Minn., Hopkins—Village, J. R. Carroll, clk., sanitary sewers in various streets and avenues. Over $40,000. Plans deposit $15. R. D. Thomas & Associates, 1200 2 Ave. S., Minneapolis, engrs.

N. Y., Brooklyn—President, Brooklyn Boro, constructing combined sewer in E. 42 St., from Cortelyou Rd. to Clarendon Rd. and in Clarendon Rd., from E. 42 St., to Albany Ave.

Bids Asked September 9

Minn., Alexandria—City, H. C. Campbell, clk., sewage tr. plant. $150,000. Toltz, King & Day, 1509 Pioneer Bldg., St. Paul, engrs. Plans deposit $15. CD 10/10—ENR 10/18.

Bids Asked September 10

Ark., Hope—City, sewerage exten., treatment plant. Plans deposit $20. M. Z. Bair, 303 Gazette Bldg., Little Rock, engr. CD 10/25—ENR 11/15.

Calif., Stockton—City, City Hall, storm water sewers to serve Fairview Terrace. Plans deposit $5. L. Payton, city engr.

Mich., Detroit—Dpt. P. Wks., City Hall, constr. river front, sewers between Jefferson Ave. and Detroit River, incl. Atwater sewer sys. $400,000. : R. Thompson, City Hall engr. CD 6/27—ENR 6/27.

PROJECTS COVERED

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger: water supply, earthwork, waterworks $22,500; other public works $40,000; industrial buildings $55,000; other buildings $205,000.

Classes of Construction

(Name in order of Listing)

Water Supply	Latin America
Sewers, Waste Disposal	Public Buildings
Bridges	Commercial Buildings
Streets & Roads	Industrial Buildings
Earthwork, Waterways	Unclassified

Stages Reported

PROPOSED WORK: Including appointment of engineers or architects.

BIDS ASKED (new announcements only). For full calendar, see also preceding issues of ENR.;

LOW BIDDERS: On jobs below $500,000 value all low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.

CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.

Symbols and Abbreviations Include:

♦	Federal Government
★	Project of $500,000 or over
ENR	Engineering News-Record
CD	Engineering News-Record Construction Daily

Bids Asked September 11

Wash., Newport—City, City Hall, trunk sewer, $35,000; treatment plant, $15,000; laterals, $90,000. H. A. Sewall, Newport, engr. Plans deposit $25. CD 11/27—ENR 12/13.

Bids Asked September 12

N. C., Louisburg—W. C. Webb, mayor, at office of T. K. Stockard, town clk., excav., bituminous concrete surfacing, concrete curb, gutter, sidewalks, 15 and 18 in. c.i. storm sewer, 6 and 8 in. vitr. clay sewers, catch basins, etc., sewage treatment plant, septic tank, dosing tank, sand filter. Plans deposit $20. Pierson & Whitman, Security Bank Bldg., Raleigh, consult. engrs.

Bids Asked September 13

Ark., Marion—Bd. Commrs., Sewer Imprvt. Dist., sewer sys., disposal plant. Plans deposit $10. C. H. Bond, engr.

Bids Asked Latter Part September

★**Fla., Daytona Beach**—City, storm sewers, over $1,000,000. Russell & Axon, Daytona Beach, engrs. CD 8/30/44—ENR 9/21/44.

Bids Asked October 1

Ont., Toronto—Municipality, Bd. Control, Toronto, pumping equipment for Ashbridge's Bay sewage treatment plant. Plans deposit $50. CD 5/3—ENR 5/9.

Bids Asked

Ill., Brookfield — Electro-Motive Corp., LaGrange, 1 story, brick, rein.-con. sewage disposal plant. $300,000.

LOW BIDDERS

★**Calif., Los Angeles**—Los Angeles County Sanitation Dist. 2, 1206 S. Maple Ave., rejected bids July 10, submerged pipe line, ocean floor off Whites Point, L.B. **$1,356,640.** Will readvertise. CD 7/18—ENR 7/25, under L.B.

Calif., Redding—City, City Hall, Aug. 19, sanitary sewage treatment plant, outfall sewer, from J. P. Brennan, 1343 Butte St, **$243,917.** W. W. Green, city engr. CD 8/1—ENR 8/8.

Miss., Meridian — City, c/o Mayor & Bd. Comm., bids August 15 rejected, approx. 50,910 lin ft. of pipe sewers 6 to 48 in. in diameter, 185 manholes, 329 inlets. J. C. Watts, engr. **$75,000.** CD 8/2—ENR 8/8.

Wis., Milwaukee—City, City Hall, Aug. 15, sanitary sewers in N. Green Bay Ave., Lawn Ave., from L. & L. Service Co., 306 E. Center St., Zone 12, **$95,765.** CD 8/9.

CONTRACTS AWARDED

★**Calif., Long Beach**—City, City Hall, storm drain in Willow St., Unit 1, to Steve P. Rados, 2975 San Fernando Rd., Los Angeles. **$507,662.** BA 8/14, CD 8/21, under L.B.

Wash., Leavenworth—City, City Hall, sewer sys., 41,000 ft. 6 to 12 in. pipe, to Goodfellow Bros., Wenatchee. **$162,976.** CD 7/16—ENR 7/25.

Wis., Milwaukee—City, City Hall, sanitary storm and combined sewers in city property, to Tomaro, Carle & Tomasini, 3404 E. Armour Ave., Cudahy, **$41,600;** N. Jefferson St., to O. Seefeld, 5101 W. State St., **47,796.** Bids 8/14. CD 8/9.

Que., Port Alfred—Municipality, sewers to J. R. Theberge Ltd., 7 Main, Chicoutimi, $45,000. C. H. Jette, Port Alfred, engr.

Sask., Lloydminster—Town, c/o W. M. Cardiff, clk., sewers and watermains, to Henry Borger & Son, 194 Osborne St., Winnipeg, Man., about **$72,000.** CD 6/25—ENR 6/27.

Sask., Swift Current—City, F. J. Ashford, clk., sewage treatment plant to W. C. Wells, Wilkie. **$100,000.** H. W. Carss, engr. c/o owners. CD 7/22—ENR 7/25.

BRIDGES

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked September 5

Florida—State Rd. Dpt., Tallahassee, 2 concrete slab bridges, S.R.D. No. 41, 42 and 44, 331.5 ft. long, 2 bridges eight 15 ft. rein.-con. slab spans on concrete and timber pile bents, 1 six 15 ft., between Rd. 1 near DeFuniak Springs northwest, Rd. 40, Job 6006-104. Walton Co., $55,000; 21 box culverts between Belleview and East Lake, Rd. 2, Job 3601-108, Marion Co., $18,000.

BRIDGES (Cont'd.)

Bids Asked September 12

O., Toledo — Lucas Co. Comrs. Courthouse, Bridge No. 6 over Ten-Mile Creek, on Sylvania-Metamora Rd., Richfield Twp. $41,500. Melvin Rice, engr. CD 11/18/43—ENR 11/25/43.

Bids Asked September 18

California—State Div. Hys., Pub. Wks. Bldg., Sacramento, rein.-con. slab bridge across Bear Slough, 4.5 mi. west of Galt, Sacramento Co.; rein.-con. slab bridge, repairs, across Moody Slough 2 mi. northeast of Winters and Cache Creek, 0.2 mi. north of Capay, Yolo Co. G. T. McCoy, hy. engr.

Bids Asked September 20

Pennsylvania—State Hy. Dpt., Harrisburg, 2,123 ft. crushed aggregate base course with bituminous surfacing and rein.-con., I-beam bridge, L. r. 40044 (7), 40045 (3), over Mill Creek, Luzerne Co.; 1,179 ft., crushed aggregate base with bituminous surfacing and steel truss and I-Beam bridge, over Penns Creek, on Bough St., Selingsgrove Boro, Snyder Co. Plans deposit $2.50 each.

LOW BIDDERS

★**Calif., Long Beach**—City, City Hall, Aug. 21, Willow St. bridge, from G. F. Atkinson Co., 2223 S. Santa Fe Ave., Los Angeles, **$639,100.** CD 7/31—ENR 8/8.

Connecticut—State Hy. Comn., Hartford, Aug. 19, from D. V. Frione & Co., 87 Foxon Rd., New Haven, bridge over RR tracks, Wilbur Cross Hy., Vernon, **$337,666**; 2 span bridge, imprv. State St., North Haven, **$125,204.** CD 8/9—ENR 8/15.

Connecticut—State Hy. Dpt., W. J. Cox, hy. comr., Hartford, rejected bids July 8, 93 ft. steel girder bridge Wilbur Cross Parkway, L. B. **$146,036.** CD 7/11—ENR 7/18, under L. B.

Fla., Miami—Dade Co. Bd. Comm., bridge at N. Miami Ave., Biscayne Canal, from Powell Bros., Ft. Lauderdale. **$46,000.** E. Rader, 1301 Courthouse Bldg., co. engr.

New York—Bureau Contracts & Accts., Governor Alfred E. Smith State Office Bldg., Albany, received no bids Aug. 21, bridge over Seneca River, Onondaga Co.; 3 bridges near Plattsburg, Clinton Co.; imprv. 2.11 mi. road, Jefferson Co. CD 8/6—ENR 8/15.

★**South Carolina**—State Hy. Dpt., Columbia, rejected bids Aug. 1, imprv. bridge over Saluda River, Greenville and Pickens Counties, L. B. **$190,164**; bridge over Broad River, Cherokee Co.; L. B. **$174,095**; bridge over Lynches River, etc., Florence Co. L. B. **$138,039.** CD 8/8—ENR 8/15 under LB.

★**Virginia**—State Dpt. Hys., Richmond, Aug. 20, imprv. 7.5 mi., 4 bridges, Fairfax Co., from Bero Eng. & Constr. Co., Hampton, **$515,708*****bridge over Mine Run, Orange Co., from J. W. Beacher & Co., Richmond, **$53,447** ***bridge over Rock Castle Creek, Patrick Co., from R. E. Mills Co., Inc., Salem. **$60,349.** CD 8/8—ENR 8/15.

★**Virginia**—State Hy. Dpt., Richmond, rejected bids Aug. 8, imprv. bridge over New River, Montgomery and Pulaski Counties, L.B. **$1,236,651.** CD 8/14, under LB.

CONTRACTS AWARDED

Pa., Phila.—City, Dpt. P. Wks., City Hall Annex, Grays Ferry Ave. bridge reconstruction and fender repairs, to J. H. Terry Co., Drexel Bldg. **$60,900.** Bids 8/15. Awarded 8/17. CD 8/1—ENR 8/8.

Ont., Toronto—Dpt. Hys., piers and abutments for concrete and steel bridge on Hy 5, bridge 700 ft. long, 100 ft. high, 30 ft. wide, concrete deck, roadway and sidewalks, also about 40,000 cu. yds. of earth excavation, 1 mi. grading, etc. to Therrien Const. Co., Ltd., 200 Bay St., Toronto. About **$225,000.**

STREETS AND ROADS

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked September 4

Kan., Burrton—O. C. Hollis, city clk., street grading, drainage, curb and gutters, 80 lin. ft. 18 in. concrete storm sewer, etc. Plans deposit 20 cents.

Bids Asked September 4

Louisiana—State Hy. Dpt., 310 Hy. Bldg., Baton Rouge, gravel surfacing, drainage structures 61.68 mi. Rtes. 22, 113, 151, 251, 252, 498, 1058, C 1656, SP 737-00-18 Contr. 4, Beauregard & Allen Parishes; 2.269 mi. Rte. C-2138, Moreau School Rd. Hy., SP. 713-00-25, Natchitoches Parish; 0.114 mi. Pigolets Hy., Rte. 2, SP 6-04-21, Orleans Parish; bituminous surfacing, 2 mi. Rte. 846, Covington Northeast Hy., SP 279-01-01, St. Tammany Parish. Plans deposit $15. CD 8/14—ENR 8/22.

Bids Asked September 5

Florida—State Rd. Dpt., Tallahassee, bituminous resurfacing, asphaltic surface course 2.360 mi. Rds. 17 and 23, Baker and Wheeler Sts., Plant City, SP. Job 1003-108, 1009-110, 1010-103, 1020-104; 67,978 sq. yd. Farmers' Market, Plant City, Job 1023-102, Hillsborough Co., $100,000; 0.602 mi. Rd. 2, Marion St. between Orange St. and Jackson St., Lake City. Job 2904-105, Columbia Co., $10,000. Plans deposit $5 each. H. P. Coloney, hy. engr.

†**Ore., Albany**—Pub. Roads Admin., Bedell Bldg., Portland, surfacing and oiling 15.5 mi. South Santiam Hy., near Cascade Summit. $215,000. W. H. Lynch, div. engr.

Bids Asked September 9

Minnesota—State Hy. Dpt., 1246 University Ave., St. Paul, production of mineral aggregate for the Maintenance Div., crush, screen, load and haul 32,100 cu. yd. mineral aggregate, Willmar, Kandiyoki Co. $40,000. O. L. Kipp, ch. engr. State Hy. Dpt.

Bids Asked September 18

California—State Div. Hys., Pub. Wks. Bldg., Sacramento, plant mix surfacing 8 mi. between Arcata and Ryans Slough Bridge, Humboldt Co.; grading, asphalt concrete paving 5.1 mi. Bay Shore Freeway from Colma Creek, South San Francisco to Broadway Ave., Burlingame, San Mateo Co. G. T. McCoy, hy. engr.

Bids Asked September 19

Fla., Jacksonville—City, paving, resurfacing, reconstructing, widening parts of 6 streets. W. E. Shedden, city engr.

Bids Asked September 20

Pennsylvania—State Hy. Dpt., Harrisburg, widening existing pavement with reinforced cement concrete pavement 40,054 ft., incl. exten. of 6 rein.-con. structures, native stone or crushed aggregate base with bituminous surfacing and exten. of 5 rein.-con. bridge, L.R. 356 (11), T.R. 96, from Pa.-Md. state line north to Hyndman Boro, Bedford Co.; reinforced cement concrete pavement 6,283 ft., and plate girder bridge and drainage, L.R. 221 (9), T.R. 36, from point in Ashville Boro to point towards Chest Springs Boro, Allegheny and Clearfield Twp., Ashville Boro, Cambria Co.; reinforced cement concrete pavement 3,235 ft., with bituminous surfacing and rein.-con. bridge and relaid brick pavement L.R. 11024, Sec. 4, T.R. 164, in Portage Boro and northerly, Cambria Co.; rein.-con. pavement 1,301 ft., L.R. 76 (14), T.R. 51, Monoca Boro, Beaver Co.; 16,622 ft., incl. constructing of rein.-con. structure, native stone or crushed aggregate base with bituminous surfacing, L.R. 43 (2), T.R. U. S. 30 between Chambersburg and Fayetteville, Franklin Co.; 822 ft., divided highway consisting of 2 lanes plain cement concrete base with bituminous surfacing L.R. 67027 (1), on Adams Ave. between Montour St. and Roosevelt Blvd., in Phila., Philadelphia Co. Plans deposit $2.50 each. T. C. Frame, ch. engr.

Bids Asked

S. C., Greenwood—Greenwood Co., c/o Hy. Comm., 10.5 mi. county roads.

Tex., Texas City—Sunset Terrace Addn., c/o H. E. Dorset, Texas City, asphalt street paving and concrete curbs and gutters, $40,000. Halle & McClendon, 2801 San Jacinto St., engrs.

SOON LETS CONTRACT

Ore., North Bend—Weyerhaeuser Timber Co., North Bend, soon lets contract 10 mi. logging road up Millicoma river from Allegany, 290 ft. tunnel and five 80 to 100 ft. long bridges, concrete and piling abutments. **$250,000.**

LOW BIDDERS

California—State Div. Hys., 808 State Bldg., Los Angeles, Aug. 15, imprv. 15.4 mi. Riverside Co., from Arthur A. Johnson, 421 Pearl St., Laguna Beach. **$54,935.** CD 7/25—ENR 8/1.

California—State Div. Hys., Pub. Wks. Bldg., Sacramento, Aug. 21, imprv. 4.6 mi. Shasta Co., from Harms Bros., Rte. 4, Box 2220, Sacramento and N. M. Ball Sons, 685 Delaware St., Berkeley. **$494,627.** CD 7/25—ENR 8/1.

California—State Div. Hys., Pub. Wks. Bldg., Sacramento, Aug. 21, imprv. Contra Costa Co., from J. R. Armstrong, 400 Central, Box 216, El Cerrito, **$101,211*****imprv. 1.3 mi. Kern & Inyo Counties, from Brown & Doko, Box 23, Pismo Beach, **$45,914.** CD 8/2—ENR 8/8.

Calif., Los Angeles—City, City Hall, Aug. 14, grading, paving, Wilbur Ave., Los Angeles River to Linnet St., from R. R. Hensler, 816 Allen Ave., Glendale. **$121,731.**

Connecticut—W. J. Cox, hy. comnr., Hartford, rejected bids July 8, 4,280 ft. bituminous macadam paving, bridge exten. over Pequonnock River, Trumbull, FAP Proj. L. B. **$73,437.** CD 7/11—ENR 7/18, under L. B.

★**Connecticut**—State Hy. Dpt., W. J. Cox, hy. comr., State Office Bldg., Hartford, Aug. 19, from M. A. Gammino Constr. Co., 728 Valley St., Providence, R. I., imprv. Wilbur Cross Hy., Vernon-Tolland, **$762,809**; Winchester-Barkhamsted-New Hartford, **$906,692**; from Campenella & Cardi Constr. Co., 50 Sprague Ave., Providence, R. I., 24376 ft., Salem, **$121,556**; from D. Deering Co., Inc., 209 Main St., Norwalk Conn., 4,181 ft., Norwalk, **$45,930**; from F. J. Shields, Inc., 91 Central St., Southbridge, Mass., bridge over Roaring Brook, 6,459 ft. Union, **$43,278**; from White Oak Excavators, Inc., 59 E. Main St., Plainville, 18,992 ft. Wilbur Cross Hy., Vernon, **$361,450**; from Laverty & Hurley Co., 260 Bostwick Ave., Bridgeport, 5,009 ft., Washington Bridge over Housatonic River, Milford-Stratford, **$49,305.** CD 8/9—ENR 8/15.

Connecticut—State Hy. Dpt., W. J. Cox, hy. comr., Hartford, Aug. 19, 10,111 ft. Leonard's Bridge Rd., Lebanon, from Chadwick Excav. Co., 108 Main St., Meriden, **$46,465**; received no bids Aug. 19, 33,179 ft. Frank Beach, Fort Hill Rds., New Milford; 5,693 ft. Southbury 15,227 ft. Washington. CD 8/9—ENR 8/15.

Connecticut—State Hy. Dpt., Hartford, rejected bids July 29, imprv. 3,869 ft. Rts. 6-6A 8, L.B. **$95,445**; bridge, Dixwell Ave., Wilbur Cross Pky., Hamden, L.B. **$34,393**; Wilbur Cross Hy. over RR and Connelly Pky., Hamden, L.B. **$157,648.** CD 8/2—ENR 8/8, under L.B.

Fla., Miami—Dade Co., Bd. Comm., Aug. 13, 2½ mi. double lane hy., parking area, sidewalks, Cradon Park Dev., from H. L. Mills Constr. Co., 3905 N.W. 27 St. **$346,617.** CD 8/2—ENR 8/8.

Massachusetts—State Hy. Dpt., Boston, Aug. 20, reconstructing state hy. in North Attleborough, from Campanella & Cardi Constr. Co., 780 Jefferson Blvd., Hillsgrove, R. I. **$51,225.** CD 8/16.

Mississippi—State Hy. Comm., W. Spiva, dir., Jackson, bids postponed to have been opened Aug. 13, FAS-S-43-A (1), Tallahatchie Co.; FAGM 57 (2) OFF, Tishomingo Co.; FAP 16 (3), Washington Co.; FA 176 (15), Claiborne Co.; FAGM 203 (3), Scott Co.; FAGM 279 (2), Monroe Co. CD 8/20—ENR 8/22, under L.B.

Miss., Meridian—City, c/o mayor & Bd. Commrs. bids August 15 rejected, concrete curbing, guttering, sidewalks paving, in various streets, 160,000 sq. yds. **$200,000.** J. E. Watts, City Hall, engr. CD 7/29—ENR 8/1.

Nebraska—State Dpt. Rds. & Irrigation, Lincoln, Aug. 1, imprv. 4-6 mi. Knox Co., **$46,841** ***5.4 mi. Merrick Co., from Platte Valley Constr. Co., Grand Island, **$43,396*****4.6 mi. Knox Co., from Capital Bridge Co., 1000 N. 9 St., Lincoln, **$52,028*****15.3 mi. roads, from Booth & Olson, 529 Ins. Exchange Bldg., Sioux City, Ia., **$76,338*****15.3 culverts, Sheridan Co., from Rentlor Co., Grand Island, **$79,059.** CD 7/25.

★**New York**—Bureau Contract & Acct., Governor A. E. Smith State Office Bldg., Albany, Aug. 21, imprv. 7.57 mi. Albany & Schenectady Counties, from Fitzgerald Bros. Contr. Corp. and Cullanan Rd. Imprvt. Co., Troy, **$1,653,715**; Est. **$1,653,715*****1.18 mi. Greene Co., from Green Island Constr. Co. and Victor Arzani Contr. Co., Green Island, **$688,507**; Est. $710,000***3.9 mi. Cayuga Co., from Rochester Concrete Constr. Co., 486 Clinton Ave. S., Rochester, **$379,401**; Est. $382,000***44.66 mi. Nassau Co., from Mt. Vernon Contr. Corp., Mt. Vernon, **$698,339**; $704,000***4 grade separations, Nassau Co., from Andrew Weston Co., Inc., Woodmere, Long Island, **$569,875**; Est. $569,875. CD 8/6—ENR 8/15.

N. Y., New York—Comr. of Parks, at office of Dpt. Parks, Arsenal Bldg., Central Park, 64 St. and 5 Ave. Zone 21, Aug. 13, asphalt and concrete paving walks and miscellaneous areas in various parks, Boroughs of Manhattan and The Bronx, Contr. No. CNY-G-446, from Nassau Constr. Co., 103 Park Ave., Zone 17. **$98,305.** CD 8/5.

★**North Dakota**—State Hy. Dpt., Bismarck, rejected bids Aug. 16, imprv. 6.017 mi. State Hy. 37, McLean Co., L. B. **$87,702**; 7.641 mi. U. S. Hy. 10, Cass Co., L. B. **$449,925.**

★**Ohio**—State Hy. Dpt., Columbus, Aug. 20, imprv. 1.607 mi. Cuyahoga Co., from Lombardo Bros., 3600 Ridge Rd., Cleveland 2, **$572,631**;***3.719 mi. Belmont Co., from A. J. Baltes Inc., 11 Olive St., Norwalk, **$1,460,847.** CD 8/13.

O., East Cleveland—Cuyahoga Co., New Court House, F. J. Husak, clk., received no bids August 15 resurfacing with asphalt Taylor Rd. between Brunswick and Mayfield Rds. **$50,300.** Will readvertise. John O. McWilliams, Standard Bank Bldg., engr. CD 8/9—ENR 8/15.

Texas—State Hy. Comn., J. A. Redditt, chmn., Austin, cancelled bids to have been opened August 28, imprv. 2.244 mi. in Orange Co. C. H. Brown, Orange, engr. CD 8/20—ENR 8/22.

★**Virginia**—State Dpt. Hys., Richmond, imprv. roads Washington Co., from Virginia Asphalt Paving Co., 501 McClanahan Pl., Roanoke, **$117,585*****3.21 mi. Shenandoah Co., from Hodgin & Gilliam, Upperville, **$281,744** ***bridge, Holston River, Washington Co., from R. E. Mills Co., Inc., Salem and W. N. Jackson, 108 1 St., S. Roanoke, **$461,284***** bridge, Brook Run, 0.42 mi. road, Henrico Co., from Hechler Bros. and B. W. Jackson Contr. Co., 15½ Nine Mile Rd., Richmond, **$75,026***** 12.12 mi. road bridges, Mathews and Gloucester Counties, from D. B. Gentry Constr. Co., Walnut Gove, N. C., **$409,062.** CD 8/8—ENR 8/15.

Virginia—State Hy. Dpt., Richmond, rejected bids Aug. 8, imprv. 1.48 mi. Stafford Co. L. B. **$76,624**; 0.45 mi. Mecklenburg Co. L. B. **$30,631.** CD 8/15 under L. B.

CONTRACTS AWARDED

★**Alabama**—State Hy. Dpt., Montgomery, to Dozier Bros. Constr. Co., Mt. Meigs, imprv. 12.645 mi. Crenshaw Co., **$106,480**, 0.964 mi. Marion Co., **$84,608**; to Pitts Douglas & Co., Anniston, 6.152 mi. Chilton Co., **$97,952**; 9.385 mi. Shelby Co., **$136,166**; to Clyde O. Mitchell Co., 3816 S. 1 Ave., Birmingham, 9.071 mi. Henry & Houston Counties, **$89,825**; 7.23 mi. DeKalb Co., **$271,098**; to Cobb Bros. Constr. Co., Meridian Miss., 4.589 mi. Dallas & Perry

STREETS AND ROADS (Contracts Awarded, Cont'd.)

Counties, **$443,706**; to E. J. & W. L. Cobb Co., 803 Mobile Rd., Montgomery, 14.047 mi. Marengo Co., **$182,203**; to Grant Constr. Co., Montgomery, 5.92 mi. Covington Co., **$68,-332**; to W. M. Ford Constr. Co., Lafayette, 12.8 mi. Lauderdale Co., **$43,650**; to N. G. Giddens Co., Auburn, 1.66 mi. Lee Co., **$53,-121**; to Haigler Constr. Co., Atlanta Hy., Montgomery, 6.431 mi. Pike Co., **$141,550**; to J. F. Walters Co., Troy, 3.625 mi. Pike Co., **$92,684**; to F. L. Bray Constr. Co., 107 Elmira Ave., Mobile, 19.203 mi. Dallas Co., **$171,980**; to Vandergriff Constr. Co., 4708 N. Court St., Montgomery, 12.412 mi. Monroe Co., **$320,572**; to Southern Contr. Co, Ozark, 9.04 mi. Baldwin Co., **$134,136**; to G. W. Norell Contr. Co., Georgiana, 0.028 mi. Greene Co., **$41,692**; to McDougald Contr. Co., Northside Dr. N.W., Atlanta, Ga., 7.63 mi. Jefferson Co., **$322,783**; to Moss-Thornton Co., Jasper, 12.067 mi. St. Clair, **$282,004**; to A. L. Crow Constr. Co., 111 S. 41 St., Birmingham, 5.238 mi. Hale Co., **$103,937**; to Wright Contr. Co., 504 25 Ave., Columbus, Ga., 5.908 mi., roadway, **$52,693**; to W. J. Tidwell Co., Douglasville, Ga., bridges, Barbour Co., **$49,109**. Total $3,290,501. CD 8/8.

Ala., Bessemer—City, c/o mayor, grading, drainage, surfacing, Clarendon Ave. from 9 St. to 14 St., to Sullivan, Long & Hagerty, Bessemer. **$45,294**. J. W. Goodwin Engrg. Co., Martin Bldg., Birmingham, engrs.

Ala., Birmingham—Jefferson Co. Comm., to Georgia Alabama Rd. Constr. Co., 1801 Comer Bldg., 5.77 mi. Oak-Grove-Little Shoals Creek Rd., **$99,353**; 5.95 mi. Oak Grove-Betty Hill Rd., **$89,179**. CD 7/31.

Calif., San Mateo—City, City Hall, imprv. streets Hillsdale Unit 3, to L. C. Smith, 1 & Railroad Aves., **$209,098*****Laurel Village, to Union Paving Co., 212 Babcock Bldg., San Francisco, **$53,452**. A. Sullivan, city engr. CD 8/9.

Calif., South San Francisco—City, City Hall, imprv. streets Mayfair Village 2, Spec. 1126, to L. C. Smith, 1 & Railroad Sts., San Mateo. **$43,175**.

Fla., Miami—Dade County, c/o County Comrs., sidewalks, parking area at North Dade Beach Ocean park, to R. H. Wright & Son, Ft. Lauderdale. **$48,689**. E. Rader, co. engr.

Ill., Waukegan—City, c/o E. R. Holmberg, clk., City Hall, August 12, 0.54 mi. bituminous concrete paving streets 32T-CS and 1.0837 mi. 33T-CS, to Skokie Valley Asphalt Co., Gurnee. **$38,872** and **$47,988** respectively. CD 8/9—ENR 8/15.

Kan., Hoisington—City, City Hall, street imprvs., to H. L. Matthews, Dodge City. **$90,348**. CD 7/30—ENR 8/8.

Minnesota—State Hy. Dpt., 1246 University Ave., St. Paul, imprv. 14.9 mi. hy. between Deer River and Bowstring River, S.P. 3107-09 (TH 6-61), S 453 (6), to Herbison Constr. Co., Brainerd, **$164,473**; 13.8 mi. hy. between 1/4 mi. south of Wells and Keister, S.P. 2204-11 (TH 22-39), S 121 (4) and S.P. 2203-09 (TH 22-87) S 128 (3), to Megarry Bros., St. Cloud, **$165,818**. Bids Asked 8/9. CD 7/24—ENR 8/1.

Minn., Blue Earth—Faribault Co., G. G. Buscho, aud., imprv. 4.5 mi. hy. S.P. 22-501-10 (SAR 2), Minn. Proj. S 119 (6), to W. Hodgman & Son, Fairmont, **$46,188**. Bids Asked 8/9. CD 7/24—ENR 8/1.

†**Minn., St. Paul**—Public Roads Admin., Federal Works Agency, 1109 Main Post Office Bldg., asphalt stabilized base course, Minn. Forest Hy. Project 15-A1, B1, C1, Lake Co., to Taylor & Taylor Inc., and Clearwater Gravel Co., 319 W. Superior St., Duluth. **$111,329**. Bids Asked 7/24. CD 7/17.

★**Montana** — State Hy. Comn., Helena, imprv. 6 mi. on Belton east section of Belton-Glacier Park station rd. to Union Constr. Co., 11 Ave., and 11 N. Great Falls. **$730,491**. H. W. Holmes, engr. CD 7/20—ENR 8/1.

N. C., Hickory—City, J. D. Rhyne, mgr., City Hall, street and sidewalks imprvs., to Dickerson Co., Box 391, Monroe, over **$50,000**. Bids 8/6. CD 7/26—ENR 8/1.

★**North Dakota**—State Hy. Dpt., Bismarck, imprv. 6.017 mi. State Hy. 37, McLean Co., to Butler Constr. Co., Grand Forks, **$63,980*****imprv. State Hy. 5, Bottineau and Rolette Counties, to T. M. Swingen & Son, Grand Forks, **$52,221*****18.68 mi. Hy. 5, Bottineau and Rolette Counties, to J. Coghlan, Rolla, **$273,511*****10.34 mi. State Hy. 23, McKenzie Co., to Inland Constr. Co., 3867 Leavenworth St., Omaha, Neb., **$80,-711*****18.998 mi. LaMoure Co., to Wm. Collins & Sons, Fargo, **$205,762*****11.77 mi. Hy. 83, Burleigh Co., to Northern Improvement Co., Fargo, **$142,460**. Grand total $818,645. BA 8/16.

★**U. S. D., Fort Randall**—U. S. Eng., 1709 Jackson St., Omaha, Neb., constructing Sect. 1, of east access road to Fort Randall Dam site, to Peter Kiewit Sons Co., Omaha National Bank Bldg., Omaha, Neb. **$528,389**. Bids 8/6. CD 8/16—ENR 8/22.

Pa., Phila.—City Dpt. P. Wks., City Hall Annex, paving Ridge Ave., and repaving 8 St., to General Asphalt & Paving Co., Martins Mill Rd. and Oxford Pike, **$144,160** and **$82,-957**, respectively. Bids 8/14. CD 8/1—ENR 8/8.

Tex., Corpus Christi—City, City Hall, surfacing 5 mi. streets with 2 in. hot-mix, to Brown & Root, Inc., 1501 Musset St., **$85,096**.

Virginia—State Dpt. Hys., Richmond, mtg., delivering and applying plant mixed bituminous material 32,976 tons, Suffolk Sch. 1, to American Asphalt Products Co., 60 P St., S.E., Wash., D. C., **$131,820**; 32,812 tons, Richmond and Suffolk Dist., Sched. 2, to Sam Finley, Inc., Roanoke. **$137,490**. CD 7/26—ENR 8/1.

EARTHWORK, WATERWAYS

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked September 3

N. J., Asbury Park—City Council, City Hall, erecting pile and timber groin 100 ft., with top elevation varying from 12 ft. above mean low water at inshore end to 7 ft., above mean low water at offshore and 700 ft. long stone jetty, having top width of 16 ft., at elevation of 7 ft., above mean low water. $86,000. Plans deposit $25. CD 1/4—ENR 1/24.

Bids Asked September 4

Tex., McAllen—Hidalgo Co. Water Control & Imprvs. Dist. 15, McAllen, approx. 48 mi. of irrigation pipe line. Plans deposit $50. E. M. Card, McAllen, consult. engr. CD 6/3.

†**South Carolina**—U. S. Eng., Custom House, Charleston, maintenance dredging in waterway from Charleston to Beaufort, Spec. 38-081-47-7. CD 8/19—ENR 8/22.

Ont., London—Secy. Dpt. P. Wks., Ottawa, dredging parts of Thames River, 115,000 cu. yds. sand and silt. About $75,000. CD 2/16/45—ENR 3/22/45.

B. C., New Westminster—Dpt. P. Wks., Ottawa, Ont., secy. c/o owners, channel protection on Kirkland Island, Fraser River, about $35,000. R. Blais, engr. CD 9/19/44—ENR 11/2/44.

Bids Asked September 10

Calif., San Diego—City, Civic Center Bldg., 849,117 cu. yd. dredging and filling in Mission Bay, Doc. 364263. Over $100,000. Plans deposit $10. H. W. Jorgensen, city engr. CD 7/19—ENR 8/8.

†**New Mexico**—Bureau Reclamation, Tucumcari, earthwork and structures, Sta. 418 plus 80 to Sta. 889 plus 00, Hudson Canal, Lateral Sys., Unit 5 and Troutman, Smith, Harris Laterals, Tucumcari Proj., Spec. 1434. Extended date. CD 7/15—ENR 7/18.

Bids Asked After September 30

†**New Jersey**—U. S. Eng., 120 Wall St., New York 5, N. Y., clearing, snagging, Pequannock Twp. Ditch, Lincoln Park and Pequannock Twp., Morris Co. Rejected bids 8/7. CD 7/12—ENR 7/18.

Bids Asked October 7

†**Montana**—U. S. Dpt. Interior, Bureau of Reclamation, Denver, Colo., furnishing and delivering fob cars at the shipping point or fob cars at Fallon, 2,300-volt motor-control equipment for installation in Fallon Pumping Plant, Buffalo Rapids Proj., Spec. 1473.

LOW BIDDERS

†**New York and New Jersey**—U. S. Eng., 120 Wall St., New York 5, N. Y., rejected bids Mar. 8, dredging 471,000 cu. yd., place measurements of all material except ledge rock channels, N. Y. and N. J. channels. LB **$246,150**. CD 3/12—ENR 3/21.

†**Virginia**—U. S. Eng., Fort Norfolk, Norfolk, indefinitely postponed bids to have been opened Aug. 27, dredging shoals at lower entrance to Rockanding Shoal channel and in vicinity of Bell Buoy No. 11, James River, Inv. No. 44-110-47-7. CD 7/31—ENR 8/1.

†**West Virginia**—U. S. Eng., Huntington, withdrew bids to have been opened Aug. 27, dredging below lock and dam No. 18 and at Newberry Island, Ohio River, Ser. No. 46-022-47-23. CD 8/9—ENR 8/15.

CONTRACTS AWARDED

★†**Washington**—Bureau Reclamation, Customhouse, Denver 2, Colo., 3 turbines for Grand Coulee Dam power plant, to Newport News Shipbuilding & Drydock Co., Newport News, Va., **$1,983,569**; 3 governors for turbines to Woodward Governor Co., Rockford, Ill., **$89,739**. CD 7/16—ENR 7/25.

Ont., Port Arthur—Dpt. P. Wks., Ottawa, Ont., local breakwater repairs to Canadia Dredge & Dock Co. Ltd., Harbor Comm. Bldg., Port Arthur. About **$275,000**. R. Blais, c/o owners, engr. CD 7/26—ENR 8/1.

AIRPORTS & AIRBASES

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked September 3

Wis., Camp Douglas—RUNWAYS, etc.—National Guard Bureau, Camp Douglas, repairing, rehabilitating runways and taxiways.

Bids Asked September 5

Mass., East Boston—TAXIWAY—Dpt. P. Wks., 100 Nashua St., Boston, completing taxiway, Logan Airport.

LOW BIDDERS

Mass., East Boston—TAXIWAY—Commonwealth of Massachusetts, Dpt. P. Wks., 100 Nashua St., Boston, Aug. 20, completing East Bulkhead taxiway, Taxiway "C" and taxiway fingers, General Edward Lawrence Logan Airport, from M. DeMatteo Constr. Co., 200 Hancock St., Quincy. **$250,429**. CD 8/9—ENR 8/15.

N. Y., North Beach—AIR TERMINAL, etc.—Pan-American Airways, Municipal Airport, Jackson Heights, rejected bids July 15, terminal bldg. alterations and quarantine offices. Will readvertise from revised plans. CD 7/22—ENR 7/18, under Industrial Bldgs.

LATIN AMERICA

Mexico—Comision Nacional de Irrigacion, Balderas 94, Mexico, D.F., earth & rockfill dam, to Morrison-Knudsen de Mexico S.A., Ave. Juarez 76-509, Mexico, 12,000,000 pesos. CD 12/14—ENR 12/20.

Mexico, Mexico City—American School Foundation, Mexico City, 2 story, rein.-con. grade and high school, to Morrison-Knudsen de Mexico S.A., Ave. Juarez 76-509, Mexico City, 3,500,000 pesos. Ramon Corona & P. Jones, Monte Libano 560, archts.

Mexico, Mexico City—Mrs. Lucy Rudich, 5 story, roofgarden, rein.-con. apartment house, Corner Melchor Ocampo and Villalongin, to Joaquin Gaxiola, Mexico, D. F. **$500,000**. Ramon Corona & P. W. Jones, Monte Libano 670, archts.

Mexico, Mexico City—Ing. Alfredo Rudich, 14 story, bsmnt. garage, roofgarden, rein.-con. office and apartment, Calle de Vallarta 1, to Manuel Arizmendi, Mexico, D. F. **$800,000**. Ramon Corona & P. W. Jones, Monte Libano 670, archts.

Nicaragua, Montelimar—The Texas Co., P. O. Box 320, Long Beach, 1, Calif., mechanical repair garage, shop, warehouse, pumphouse, pipe lines, etc., to Transpacific Constr. Co., Long Beach, Calif. **$2,165,000**. W. A. Thompson, Jr., c/o owners, engr.

Venezuela—State of Zulia, F. Hermandez, governor, bids in 60 days, widening, repairs, constructing roads and highways. $200,000. CD 7/10—ENR 7/25.

Venezuela, Caracas—Dpt. Pub. Wks., E. Fler y Teran, minister, bids in 60 days, construction, widening, repairing, Bolivar Ave., downtown thoroughfare. $3,300,000.

Venezuela, Caracas—Fraga, CA. Dr. C. F. Arreaza, pres., Caracas, bids in 90 days, apartment houses. $1,000,000.

PUBLIC BUILDINGS

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked September 4

Ga., Atlanta—Bd. Regents, State of Georgia, Atlanta, 1 and 2 story, concrete block, steel warehouse and garage. Plans deposit $10. Hush-Brown, Gailey & Heffernan, Physics Bldg., Georgia Tech., archts.

Bids Asked September 5

Vt., Waterbury—Dpt. Institution & Bldgs., State House, Montpelier, brick, steel hospital, $250,000. Extended date. CD 8/13.

Bids Asked September 6

Minn., Aitkin—Village, Water and Light Bd., J. L. Spaulding, secy., power plant addn., furnishing and installating piping, wiring and cooling tower. Over $55,000. Toltz, King & Day, 1509 Pioneer Bldg., St. Paul, engrs. Plans deposit $15. CD 4/30—ENR 5/2.

N. H., Brentwood—Rockingham Co. Comm., Rockingham Co. Farm, Brentwood, 1 story brick, concrete power plant. Over $55,000. Kendall Taylor & Co., Inc., 221 Columbus Ave., Boston, Mass., archt. Richard D. Kimball, 6 Beacon St., Boston, Mass., engr. CD 3/12/45—ENR 3/22/45.

Bids Asked September 10

Ill., Aledo—Mercer County Bd. Comrs., Court House, 4 story, brick, concrete, steel hospital, $350,000. W. H. Schulzke, Moline, archt. CD 5/3—ENR 5/17/45.

Tenn., Bolivar—State Institutions of Tennessee, c/o W. O. Baird, comr., State Office Bldg., Nashville, 3 story, brick, concrete, steel, 400 bed dormitory at Western State Hospital, $350,000. CD 5/9—ENR 7/11.

Tenn., Bolivar—State Institutions of Tennessee, c/o W. O. Baird, comnr., State Office Bldg., Nashville, refrigeration and cannery, $80,000.

Neb., Fairbury—City, H. S. Yeakle, mayor, boiler unit $125,000. CD 1/10—ENR 1/24.

PUBLIC BLDGS. (Bids Asked, Cont'd.)

Bids Asked September 12

Ia., Sibley—City, c/o Clerk, power plant imprvs., bldg. addns. and alterations, furnishing and installing circulating water piping and electric work, etc. over $55,000. R. D. Thomas & Associates, 1200 2 Ave., S., Minneapolis, Minn., engrs. Plans deposit $35.

Mo., Sikeston—School Dist. of Sikeston, c/o Supt. of Schools, 99x203 ft. 1 story, brick, concrete school; addn. to Bailey elementary school incl. 2 wings, 25x75 ft. 2 story, brick, bar joists, concrete. W. B. Ittner, Inc., 408 Bd. Educ. Bldg., 911 Locust St., St. Louis, Zone 1, archt. CD 4/1.

Bids Asked September 16

British Columbia — Province of British Columbia, Minister of P. Wks., Parliament Bldgs., Victoria, 50x131 ft. 3 story, monolithic concrete library bldg. at University of B. C. $300,000. Sharp & Thompson, 626 W. Pender St., Vancouver, archts.

Bids Asked September 17

★**Tenn., Knoxville**—University of Tennessee, c/o Bus. Mgr., brick, concrete, steel, boys dormitory, $941,000. Plans deposit $100. Barber & McMurry, 813½ Market St., archts. CD 3/4/43—ENR 3/18/43.

Bids Asked September 18

Minn., Madison—City, N. M. Sorenson, mayor, furnishing and installing 1,500 kw. single automatic extraction type, condensing turbine-generator unit, with accessories; furnishing and installing 2,500 sq. ft. surface condenser and auxiliaries, and furnishing and erecting mechanical draft cooling tower. $125,000. Plans deposit $15. Perkins & McWayne, 322 Paulton Blk., Sioux Falls, S. D., engrs. CD 5/23—ENR 5/30.

Bids Asked September 20

★**Tex., El Paso**—College of Mines & Metallurgy, El Paso, dormitory, No. 1, $225,000; dormitory, No. 2 $225,000; 2 story, brick, stone, concrete dining hall, $225,000. P. McGee, 1st National Bank Bldg., archt. CD 5/10—ENR 7/11.

Bids Asked October 7

D. C., Wash.—District Comnrs., District Bldg., Richardson elementary school, 53 and Blaine Sts. CD 4/29—ENR 5/2.

Bids Asked

Me., Pownal—State Dpt. Institutional Services, State House, Augusta, two brick, steel, concrete dormitories, for boys and girls. $350,000. Alonzo J. Harriman, 292 Court St., Auburn, archt. CD 12/13—ENR 2/7.

Miss., Houlka—Town, W. C. Etewart, mayor, 1 story, masonry walls, structural steel, garment plant. $160,000. N. W. Overstreet, 201 N. Lamar St., Jackson, archt. Delta Chenille Co., Houlka, lessee.

Ont., St. Catherine—Bd. Educ., St. Catherine, C. T. McBride, 15 Welland St., secy., school addn., Catherine St., about $215,000. T. R. Wiley, 154 St. Paul St., archt. CD 4/20/45—ENR 4/26/45.

LOW BIDDERS

★**Calif., Berkeley**—Regents of University of California, Berkeley, Aug. 19, from J. E. Branagh, 105 Sheridan Ave., Piedmont, general contract, 4 story, chemistry laboratory. **$437,000*****from Scott Co., 253 Minna St., San Francisco, heating, **$84,756*****from Atlas Elevator Co., 417 6 St., San Francisco, elevator, **$24,270*****from Monterey Co. Plumbing and Del Monte Electric Co., Del Monte, plumbing, **$71,500**; comb. plumbing, heating, ventilating and electrical work, **$278,790*****from North State Electric Co., electrical work, **$94,422**. CD 7/25—ENR 8/1.

★**Calif., Huntington Park**—City, City Hall, Aug. 19, Justice Bldg. and Jail, from James I. Barnes Constr. Co., 1119 Montana St., Santa Monica. **$664,910.** CD 6/25—ENR 7/4.

†**Mich., Sault Ste. Marie**—U. S. Eng., 800 Guardian Bldg., Detroit 31, bids indefinitely postponed to have been opened Aug. 14, hydro-electric power plant, appurtenant works at St. Mary's Falls on St. Mary's River, Chippeqa Co. CD 7/10—ENR 7/18.

Miss., Houlka—Bd. Supervisors, Chickasaw Co., rejected bids July 26, factory. L. B. **$63,590.** Will readvertise.

N. C., Farmville—Town, Aug. 15, 4 cycle diesel engine-driven generating unit, switchboard and switchgear equip., from American Locomotive Works, Red Rock Bldg., Atlanta, Ga., **$122,250.** CD 7/31—ENR 8/1.

★†**Washington**—Bureau Reclamation, Custom House, Denver, Colo., Aug. 16, 65,000 h.p. electric motors for Grand Coulee Dam, from Westinghouse Elec. Corp., Union Bank Bldg., Pittsburgh, Pa. **$4,862,856.** CD 6/17—ENR 6/20.

†**Washington**—Bureau Reclamation Customhouse, Denver, Zone 2, Colo., trashracks for main units of right powerhouse at Grand Coulee Dam to Joshua Hendy Iron Works, 544 Market St., San Francisco, Calif., **$310,052.** W. R. Young, ch. engr. CD 5/24—ENR 5/30.

★†**Washington**—Bureau Reclamation, Customhouse, Denver 2, Colo., 3 generators for Grand Coulee Dam, Columbia Basin Proj., to Westinghouse Electric Corp., Gas & Elec. Bldg., Denver, Colo., **$2,932,862.** CD 8/9—ENR 8/15.

Wash., Spokane—City, City Hall, storage garage, remodeling and addns, incinerator, foundations, ash tunnel, from W. H. Petsch, 807 Malin Ave. **$91,817.** CD 6/29/45—ENR 6/12/45.

CONTRACTS AWARDED

Ala., Normal—A & M Institute & State Bldg. Comm., c/o J. Gallalee, dir., Montgomery, girls dormitory, library addns., to Sullivan, Long & Hagerty, Bessemer. **$308,500.** CD 7/30—ENR 8/8.

★**Ark., Ft. Smith**—City, c/o Chamber of Commerce, brick, concrete, steel, container mfg. plant, to Ditmars-Dickman-Pickens Constr. Co., Gazette Bldg., Little Rock. **$500,000.**

Fla., Jacksonville—City, sub-station, facilities for municipal electric plant, to General Electric Co., River Rd., Schenectady, N. Y. **$111,400.** CD 4/15—ENR 7/4.

Tex., Athens—Athens Independent School Dist., 130x160 ft. hanger for farm mechanical repair shop and community cannery, to Buck Gibbs, Athens. Approx. **$58,000.** Roy Kilmer, Greenville, archt. CD.

B. C., Kamloops—Wartime Housing Ltd., 159 Bay St., Toronto, Ont., 40 houses, to Kamloops Constr. Co., Ltd., Kamloops. About **$220,000.**

N. S., Halifax—School Bd., Sackville St., school, to Standard Const. Co. Ltd., Upper Water St. Est. **$220,360.** C. E. Fowler, Barrington St., archt. CD 8/20/43—ENR 8/26/43.

Ont., Georgetown—Wartime Housing Ltd., 159 Bay St., Toronto, 50 houses to George Const. Co. Ltd., 1171 Queen St. W. About **$300,000.** W. J. McAdam, engr., c/o owners. CD 5/17—ENR 5/23.

COMMERCIAL BUILDINGS

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked September 6

★**B. C., New Westminster**—Housing Enterprises of Canada, Ltd., 535 Homer St., Vancouver, 116 frame and stucco apartment bldgs. housing units. $500,000. Plans deposit $15. Sharp & Thompson, Berwick, Pratt, 625 W. Pender, Vancouver, archts. CD 5/24—ENR 5/30.

LOW BIDDERS

Ga., Atlanta—Clark-Kennedy Investment Co., auto, hotel, 4-8 unit bldgs. and 4 two unit bldgs., bids August 15 rejected. **$75,000.** Young & Fuller, 36 5 St., N.W., archts. CD 7/25—ENR 8/1.

Okla., McAlester—Medical Arts, Inc., McAlester, rejected bids, medical arts bldg. L.B. **$240,000.** Sorey, Hill & Sorey, 1 Natl. Bank Bldg., Oklahoma City, archts.

CONTRACTS AWARDED

Ala., Fairfield—C. J. Donald Realty Co., 4708 Gary Ave., 60 houses, own forces. **$420,000.** Burham, Echols & Smith, 523 Chamber of Commerce Bldg., Birmingham, archts.

★**Calif., Compton**—Manor Homes, Inc., c/o W. Fuesler, archt., 5750 Wilshire Blvd., Los Angeles, 100 frame, stucco dwellings, to General Constr. Engrs., Inc., 6926 Melrose Ave., Los Angeles. **$600,000.**

Calif., Los Angeles—Lafayette Park Hospital, 612 S. Lorraine Blvd., 2 story, rein.-con. hospital, 6 St. and Lafayette Park Place, to Del E. Webb Constr. Co., Continental Bldg. **$290,000.** Beelman & Spackler, Union Bank Bldg., archts.

Calif., Los Angeles—The McCarthy Co., c/o J. L. Schinner, supt., 9516 Sepulveda Blvd., Westchester Dist., 35 frame and stucco 6 room dwellings, Inglewood Ave., Interceptor to 96 Sts., Westchester Dist., own forces. **$210,000.**

★**Calif., Van Nuys**—Dike, Driggers & Lownes, Inc., 1506 Huntington Dr., S. Pasadena, 95 frame, stucco, 6 room dwellings, Van Nuys Blvd., Telfair Ave., own forces. **$600,000.** C. N. Aldrich, 1834 Dawson Ave., Long Beach, archt.

★**Fla., Miami**—T. P. Coogan, Dupont Bldg., 500 frame houses, own forces. **$2,500,000.**

Ga., Atlanta—Angus A. Alberson, Parkway Dr., 316 brick houses, Dekalb County sector near Emory University; 52 houses, Forest Park near Conley Motor base, own forces. **$5,100,000.**

Ga., East Point—Angus A. Alberson, Parkway Dr., Atlanta, 24 houses, Forest acres subdivision, own forces. **$210,000.**

Ga., Hapeville—Angus A. Alberson, Parkway Dr., Atlanta, 45 houses, Ava Park subdivision, own forces. **$400,000.**

Mich., Battle Creek—Seventh Day Adventist Church, Battle Creek, brick, steel, stone and concrete bldg. for academy school, to Ross La Mont, Battle Creek. **$250,000.** CD 9/19/45—ENR 11/1/45.

Minn., Minneapolis—Penn Model Village Inc., and G. C. Cowie, vice pres., Farmers & Mechanics Savings Bank, 90 South 6 St., 36 single one story, bsmnt., frame, stucco, brick or stone exteriors, houses, between 57 and 58 St. from Newton Ave., S. to Penn Ave., to Leck Co., 211 S. 11 St. **$300,000.** McEnary & Kraft, 1110 McKnight Bldg., archt.

Mo., Jackson Co.—Estes Park Gardens, c/o general contractor, 46 residences to V. J. Hale, 2448 Myrtle, Kansas City. **$275,000.**

Mo., St. Louis—Southwestern Bell Telephone Co., Shields R. Smith, mgr., Telephone Bldg., 1010 Pine St., Zone 1, 2 story top addn. to existing 4 story bldg., 3 story and bsmnt., 40x65 ft. addn. to telephone bldg., 2654 Locust St., to Dickie Constr. Co., Louderman Bldg., 317 North 11 St., Zone 1, approx. **$450,000.**

N. J., Camden—Albert Tesler, 310 Pond St., residential development, separate contracts. **$220,000.**

N. J., Haddon Heights—Devon Development Corp., 320 Price St., Chester, 33 residential developments, to Frank Martin Inc., 1518 Walnut St., Phila., Pa. **$260,000.**

N. J., Toms River—Dover Shores Inc., Toms River, residential development, separate contracts, over **$205,000.**

Nev., Las Vegas—Huntridge Development Co., 1109 S. 10 St., two 26 unit apartment bldgs., Charleston Blvd., to Aldous & Co., 8467 W. 3 St., Los Angeles, Calif. **$300,000.** R. Stadelman, Clark Bldg., archt.

Okla., Oklahoma City—State Theatres Inc., 20 N. Robinson St., 1,200 persons seating capacity theatre, Walker St. and Couch Dr., to Industrial Const. Co., Braniff Bldg. **$200,000.** R. Boller, 7232 Brooklyn St., Kansas City, Mo., archt. Awarded 8/12.

★**Ore., Portland**—G. C. Akerman Co., N.E. 33 Ave. and Sandy Blvd., 142 houses near Mt. Scott Country Club, day labor. **$900,000.** Dougan, Helms & Caine, Henry Bldg., archts.

Ore., Portland—Laco Corp., 5345 N.E. 31, 18 frame bldgs. for court apartment, to L. Asbahr, 6345 N.E. 31. **$450,000.** Roald Schmeer & Harrington, Spalding Bldg., archts. CD 7/16—ENR 7/25.

Pa., Monessen—Montraver Corp., 4 St., 50 1½ and 2 story brick residences, to W. F. Brown, Potomac Ave., Dormont, Pittsburgh. **$300,000.** H. Ernest Clark, 2 and Luce Ave., Monessen, archt.

★**R. I., East Providence**—Leary & Hoffman, 750 Elmgrove Ave., Providence, 150 one story single homes, Newport Ave., owner builds. Est. **$975,000.**

Tenn., Knoxville—Webb & Haves, Inc., Knoxville, 79 frame houses, to H. E. Rogers, 977 Lee Ave. **$276,000.**

★**Tex., Beaumont**—J. Anderson, Beaumont, 138 dwellings, to Anderson Constr. Co., Beaumont. **$550,000.** CD 8/16—ENR 8/22.

Tex., Fort Worth—Trinity Bldg. Corp., 3420 McCort St., fifty-four 1 story, 27x38 ft., frame residences. Owner builds. **$260,000.** E. Bedford Jones, Rep. Bank Bldg., Dallas, archt.

Tex., San Antonio—South Texas Modernaire Homes, 801 Majestic Bldg., design and constr. of approx. 45 homes to Benson Engineering & Constr. Co., 119 W., Grayson, approx. **$275,000.** CD 8/14—ENR 8/22.

Tex., San Antonio—Sims Co., c/o A. C. Parker, Maverick Bldg., frame dwellings, force account, sub-contracts. **$375,000.** CD 8/21—ENR 8/29.

Que., Outremont—Reverend Clerics of St. Viateur, 1145 St. Viateur St., Montreal, chapel to Danserean Ltd., 1387 Bernard St., Montreal. **$245,000.** E. Larase, 1480 E. Blvd St. Joseph, Montreal, archt. CD 8/9—ENR 8/22.

INDUSTRIAL BUILDINGS

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked September 4

O., Brook Park—SERVICE BUILDING—Cleveland Electric Illuminating Co., 75 Public Square, Cleveland, brick, steel concrete, service, bldg. at Hummel Rd. and W. 130 St. **$87,000.**

Bids Asked September 5

Mo., Rolla—WAREHOUSE, GARAGE—Dpt. Business & Admin., Div. of Geological Survey & Water Resources, c/o W. L. Smith Purchasing Agent, 105 State Capitol, Jefferson City, brick, concrete warehouse and garage.

Bids Asked September 6

Calif., Richmond—LABORATORY-PLANT—Standard Oil of California, 225 Bush St., San Francisco, part 6 story, 2 story, 1 story, office, laboratory, shop, process laboratory, pilot plant at refinery.

Bids Asked

Ga., Bainbridge—PLANT—Bainbridge Civic Imprv. Corp., Bainbridge, 1 story mfg. plant, $75,000-$100,000. Plans deposit $25. J. G. Kwilecki, 11 Broad St., archt.

COMMERCIAL BLDGS. (Proposed Work, Cont'd.)

Ill., Brookfield—POWER PLANT—Electro-Motive Corp., LaGrange, 1 story, brick, steel, concrete power plant. Schmidt, Garden & Erikson, 104 S. Michigan Ave., Chicago, archts.

Ill., Chicago — PLANT — Derby Foods, c/o Swift & Co., U. S. Yards, 4 story, brick, rein.-con. packing plant, $400,000. CD 7/1—ENR 7/25.

N. J., Camden—PLANT—Stonecrete Corp., 309 Market St., mfg. bldg. $55,000. Radley & MacNelly, 101 N. 7 St., archts. CD 6/17.

N. J., Trenton—STORAGE AND LABORATORY—Bay Ridge Specialties Co., 682 Stokes Ave., Qilliam Slack & Sons, archt., 140 W. State St., storage and laboratory. Over $55,000.

N. Y., Hempstead—PLANT—Ackley's Beverages, 33 Greenwich St., bottling plant and offices. $70,000. C. L. Koestor, 111-15 196th St., Hollis, archt.

Pa., Sharon — MANUFACTURING BLDG. —Westinghouse Elec. & Mfg. Co., Maloney Bldg., Blvd. of Allies, Pittsburgh, 40x150 ft. 1 story steel, rein.-con. mfg. bldg. (M-12). $200,000. L. C. Mechling, Maloney Bldg., Blvd. of Allies, Pittsburgh, engr. CD 7/12—ENR 7/18.

R. I., Providence—GARAGE—United Electric Rys. Co., New England Power Co., 441 Stuart St., Boston, Mass., brick, steel, concrete, bus garage. CD 8/14—ENR 8/22.

★**Tex., Alvin**—PLANT—Phillips Petroleum Co., N. Esperson Bldg., Houston, gas distillate plant. $2,000,000. CD 8/20.

★**Wis., Sheboygan**—REFINERY—Wisconsin Oil Refining Co., R. 3, Sheboygan, refinery expan. $575,000. CD 8/7—ENR 8/22.

Que., Montreal—FACTORY—Dominion Oxygen Co. Ltd., 3737 W. St. James St., remodeling factory, Bourgeois St. $55,000.

SOON LETS CONTRACT

Calif., San Francisco—POWER PLANT—Pacific Gas & Elec. Co., 245 Market St., soon lets contract forebay dam, related structures for Pit River 1 Power plant. CD 7/26—ENR 8/1.

Me., Scarboro—PLANT—F. H. Snow Canning Co., Scarboro, soon lets contract 125x225 ft. 1 story brick, concrete plant. $125,000. Wadsworth, Boston & Tuttle, 57 Exchange St., Portland, archts. Extended date. CD 8/9—ENR 8/15.

O., Niles — FOUNDRY — National Bearing Div., American Brake Shoe Co., E. A. Williams, Works mgr., 4930 Manchester Ave., St. Louis, 10, Mo., and 230 Park Ave., New York, N. Y., soon lets contract foundry and office. CD 6/27—ENR 7/4.

Man., Winnipeg—PLANT—Canadian Publishers Ltd., 619 McDermott Ave., soon lets contract 1 story brick printing plant addn. About $75,000. Moody & Moore, 215 Graham Ave., archt.

LOW BIDDERS

Ariz., Tucson — GARAGE — Pioneer Hotel, Inc., Tucson, Aug. 15, 2 story, 129x253 ft., rein.-con. garage, ramps, manlift, 19x19x11 ft. penthouse, from Vinson Constr. Co., P. O. Box 930, Phoenix. $295,000.

Calif., Los Angeles—FACTORY—Mission Appliance Co., 7101 McKinley Ave., Aug. 19, 1 story, 150x800 ft., steel, factory, spur track, loading canopies, from C. T. & W. P. Stover, 116 N. Alexander Ave., Claremont. $449,847. CD 8/16—ENR 8/22.

Miss., Bay Springs—Bd. Supvrs., Beats 1, 3 & 4, Jasper Co., bids August 5 rejected, factory. $75,000. Krome & Yarbrough, Threefoot Bldg., Meridian, archts. CD 7/23.

Tex., Marshall—PLANT—Blue Buckle Overall Co., Marshall, c/o R. H. Pritchett, Sr., Lynchburg, Va., project held up indefinitely, garment mfg. plant. $210,000. CD 3/4—ENR 3/7.

Tex., Midland—PLANT—Frontier Chemical Co., C. W. Cannon, vice-pres., Seagraves, project abandoned, chemical plant. $400,000. CD 6/3—ENR 6/6

CONTRACTS AWARDED

Ala., Monroeville—MILL—Monroe Mills, c/o pres., altering and addns., mill, to C. M. Guest & Son, Anderson, S. C. $260,000. J. E. Girrine Co., Greenville, engrs.

Ark., Stuttgart—PLANT—W. B. Pfeifer & M. L. Johnson & Assoc., frozen food plant and locker, own forces. $75,000.

Calif., Gridley—PLANT—Gridley Farmers Coop. Creamery Co., 2 story, rein.-con. dairy products creamery plant, to Barrett & Hilp, 918 Harrison St., San Francisco. $140,000. CD 2/19—ENR 2/28.

Calif., Los Angeles—PLANT—C. Lefkowitz, c/o H. O. Olden, archt., 174 N. Canon Dr., Beverly Hills, 3 story, bsmnt., rein.-con., glass blocks, mfg. plant, 2512 S. Main St., to L. E. Dixon Co., 409 S. California St., San Gabriel. $100,000. CD 5/24—ENR 5/30.

Calif., Los Angeles—GARAGE—R. L. Lail, 309 S. La Brea Ave., 110x178 ft., rein.-con. block auto garage, to Bill Wright, 6238 W. San Vicente Blvd. $75,000. R. Stockdale, 3260 Hillock Dr., archt

Calif., Los Angeles — FACTORY — Lerner Shops of California, Inc., 3675 W. 3 St., 100x120 ft., cement block, concrete factory, Santa Monica Blvd. and McCadden Place, own forces. $60,000. S. B. Barnes, 303 W. 3 St., engr.

Calif., Los Angeles — CREAMERY — Union Pacific RR B. H. Prater, ch. engr., Omaha 2, Neb., 1 story, 85x126 ft., rein.-con. block creamery to McNeil Constr. Co., 5860 Avalon Blvd $75,000. P. O. Davis, S. C. Weston, 124 W. 4 St., engrs. Brandon & Johnston, 1151 S. Broadway, Lloyd & Schwartz, 124 W. 4 St., structural mechanical engrs.

Calif., Terminal Island—CANNERY—Terminal Island Sea Foods, Fish Harbor, 2 story, frame, stucco cannery addn., to Charles Pettifer, 703 W. 14 St., Long Beach, $90,000. H. R. Davies, 523 Security Bldg., Long Beach, archt.

Calif., Ventura—PLANT—Southern Counties Gas Co., 810 S. Flower St., Los Angeles, 100x40 ft. plant addn., remodeling compressor station, to OFFCO Constr. Co., Inc., 2650 Cherry Ave., Long Beach. $200,000.

Conn., Stamford—FACTORY—Sterling Co., Inc., 72 Glenbrook Rd., 1 and 3 story, bsmnt., 100x110 ft., 40x90 ft., brick, concrete factory, to Sarnoff Hughes Co., 175 Market St., Paterson, N. J. $100,000.

D. C., Wash.—FREIGHT HOUSE—Pennsylvania Railroad Co., J. L. Grassitt, ch. engr., Broad Street Sta., Phila. 4, Pa., 31x200 ft. brick, concrete freight house, office, to Jeffress Dyer Inc., 1740 K St., N. W. $65,500. A. R. Wilson, c/o owners, engr.

★**Fla., Tarpon Springs** — PLANT — Victor Chemical Co., c/o W. B. Brown, vice-pres., 141 W. Jackson Ave., Chicago, Ill., phosphate plant, on Anclote River, to Foster & Creighton Co., American Natl. Bank Bldg., Nashville, Tenn. $2,000,000. CD 1/22—ENR 1/31.

Ga., Atlanta—STORAGE—Southern United Ice Co., P. O. Box 411, Jackson, Miss., ice storage, own forces, $100,000.

Ill., Bensenville — FACTORY — Kieckhefer Container Co., 1715 W. Canal St., Milwaukee, Wis., 1 story, 180x250 ft., brick, concrete, steel factory, to W. W. Oeflein, Inc., 5345 N. Hopkins St., Milwaukee, Wis. $182,400. E. Woerfel, c/o contractor, archt.

Ill., Chicago—FACTORY—John Amann & Sons, 5832 S. Green St., 1 story, brick, concrete, steel, wire products factory, to H. N. Samuels, 165 N. Wacker Dr. $95,000.

Mass., Milton—PLANT—Baker & Co., 1197 Washington St., plant alterations to Leroy F. Fox Inc., 88 Broad St., Boston. $80,000.

Mass., Needham—FACTORY—Forte Dupee Sawyer Co., 311 Sumner St., Boston, 1 story brick, concrete factory to Tredennick-Billings Co., 10 High St., Boston. $90,000. C. T. Main, 201 Devonshire St., Boston, archt. CD 7/9.

Minn., St. Paul — RAILROAD BLDGS. — Northern Pacific Ry. Co., B. Blum, ch. engr., 175 E. 5 St., Zone 1, general contract, constructing Diesel overhaul shops, overhaul and refit existing structure to handle Diesel locomotive overhaul incl. larger units, cranes and other equip. in Mississippi yards, to A. Johnson Constr. Co., 608 Foshay Tower, Minneapolis. $380,000. CD 7/3—ENR 7/11.

Mo., Kansas City — PLANT — Berg-Gibson Mfg. Co., 819 E. 17 St., mfg bldg. to Flett Constr. Co., 43 & Troost. $85,000. Emil C. Beryl, 20 W. 9 St., archt.

Mo., St. Louis—WAREHOUSE—Cook Paint & Varnish Co., 4465 Manchester Ave., Zone 10, 125x152 ft. brick, concrete 1 and 2 story warehouse, store and office bldg., at 4465 Manchester Ave., to I. E. Millstone Constr. Co., 4343 Clayton Ave., Zone 10. $100,000 plus. Gale E. Henderson, Granite Bldg., 405 Market St., Zone 2, archt.

Mo., St. Louis—WAREHOUSE—Evens & Howard Sewer Pipe Co., 5200 Manchester Ave., Zone 10, 80x82 ft. 1 story brick, concrete warehouse at 5200 Manchester Ave., to G. L. Tartlon Contracting Co., 5505 Dale Ave., Zone 10, Metz & Eason, 3829 W. Pine Blvd., Zone 8, archt.

N. J., Penns Neck (P.O. Trenton)—WAREHOUSE—Heyden Chemical Corp., 296 River Rd., Garfield, 60x142 ft. 2 story rein.-con., steel warehouse to Lewis C. Bowers & Sons Inc., 150 Nassau St., Princeton. $120,000. Arthur Haenichen, archt. c/o owners.

N. J., Trenton—SALES & SERVICE—Alexander Motors Inc., Prospect & Short Sts., 1 story steel, brick auto sales and service bldg., to General Builders Inc., 215 E. State St. $55,000. Radley & MacNelly, 101 N. 7 St., Camden, archts.

N. J., Woodbury—SALES & SERVICE—Ace Motor Sales Inc., 27 Cooper St., Woodbury, 100x300 1 story brick, block, steel auto sales and service bldg., separate contracts. $75,000. Harold M. Klaixz, 7 N. Maple, archt.

★**N. Y., Buffalo**—WAREHOUSE—American Stores Co., 424 N. 19 St., Phila., Pa., Div. Danahy-Faxon Stores, Inc., 2 story, steel, masonry warehouse and office, to Turner Constr. Co., 1500 Walnut St., Phila., Pa. $1,250,000. Awarded 8/14.

O., Toledo—WAREHOUSE—Kraft Food Co., 828 Prouty Ave., 22,000 sq. ft. warehouse incl. dry and cold storage rooms, loading docks, garage space, and general offices. 1220-30 Belmont Ave. to Del E. Webb Constr. Co. 1219 Avondale. $220,500.

Ore., Portland—FACTORY—Willard Storage Battery Co., E. 131 St., and St. Clair Ave., Cleveland, O., 1 story, 150x160 ft., concrete storage-battery factory at N. W. 35 and Yeon Ave., to Donald M. Drake Co., Lewis Bldg., Portland. $300,000. Annand & Kennedy, Central Bldg., archts.

Pa., Meadville — PLANT — American Brake Shoe Co., Meadville, 1 story, brick, steel concrete Bearing Mfg. Plant-National Bearing Metal Div. to Ragnar Benson Co., 4744 W. Rice, Chicago, Ill. $55,000. J. Gordon Turnbull, Inc., 2430 Chester, Cleveland, Ohio, engr. CD 8/8—ENR 8/15.

Pa., Harrisburg—WAREHOUSE—American Can Co., 230 Park Ave., New York, N. Y., 1 story, brick, steel warehouse at Seventh and Div. Sts., to Ritter Brothers, 1511 North Cameron St., $230,000.

Pa., Pittsburgh—PLANT—Page Milk Co., 1623 Saw Mill Run, Bldg., 1 story, 40x140 ft. steel, concrete plant addn. and remodelling, to Alex Laeson, 1623 Saw Mill Run Bldg. $124,000. Braziell & Smart, 327 Magee Bldg., archts.

Tenn., Jackson—GARAGE, etc.—Dick Clippard, Inc., 100 Poplar Ave., garage and repair shop, day labor, $60,000.

Tenn., Knoxville—PLANT—Pure Oil Co., c/o J. F. Miller, engr., 35 E. Wacker Ave., Chicago, Ill., oil storage plant, to Roehl Constr. Co., 625 Atchley Ave. $75,000.

Tenn., Lexington—PLANT—Coca-Cola Bottling Co., Lexington, bottling plant, to S & W Constr. Co., Shrine Bldg., Memphis. $100,000. Everett Woods, 81 Madison Bldg., Memphis, archt. CD 8/16—ENR 8/22.

★**Tex., Fort Worth**—MILL, etc.—Burrus Mill & Elevator Co., Colorado Gulf Hy., 10 story, 50x168 ft., feed mill, 1,000,000 bu. cap. grain elevator, 4 story, warehouse. Owner builds. $1,000,000. CD 8/9—ENR 8/22.

Tex., Houston — WAREHOUSE — Wayne-Texas Co., 6931 Harrisburg Blvd., Houston, warehouse, to Steel Building Co., 5402 Lawndale Ave., approx. $60,000. CD 8/3/45—ENR 8/23/45.

Tex., Mineral Wells — PLANT — McGaugh Hosiery Mills, M. L. Dengir, New Braunfels, nylon hose mfg. plant, own forces. $75,000. CD 7/17/45.

Tex., Victoria — PLANTS — Halliburton Oil Well Cement Co., Duncan, Okla., 2 units of bulk cement plants, to Lee Aiken, P. O. Box 2350, Corpus Christi, $75,000. CD 8/19.

★**Wash., Camas**—PAPER PLANT BLDGS.—Crown Zellerbach Corp., Public Service Bldg., Portland, Ore. addns., to pulp and paper plant, to The Austin Co., 16112 Euclid Ave., Cleveland, O. $3,756,088. CD 5/9—ENR 5/30.

Wash., Seattle—WAREHOUSE—Preservative Paint Co. & Wood Beautifiers, Inc., 703 Lucille St., 2 story, 40x240 ft., mill, shingle staining plant, paint warehouse, to H. E. Carlbom Constr. Co., 6718 22 Ave. N.W. $65,000. W. G. Brust, Republic Bldg., Zone 1, archt.

Wash., Spokane—PLANT—Marshall-Wells, Lake Ave., S. Duluth, Minn., altering wholesale hardware bldg., at E. 131 Main St., to Henry George & Sons, Hutton bldg., $100,000. Whitehouse & Price, Hutton Bldg., archts.

Wash., Vancouver—WAREHOUSE—Bennett Hardware, 1 story, 60x150 ft., rein.-con., warehouse, to Henrichs, Beedle & Hearn, 112 W. 8 St., $100,000.

W. Va., Owings—LAMP HOUSE, etc.—Consolidated Coal Co., Fairmont, 85x99 ft. 2 story, brick, concrete block, steel, rein.-con. lamp and bathhouse to Mountaineer Engr. Co., Jacobs Bldg., Fairmont. CD 8/5—ENR 8/15.

B. C., Prince Rupert—PLANT—Prince Rupert Co-operative Inc., Prince Rupert, liver oil plant to Dominion Constr. Co., Ltd., 150 Tranville, Vancouver. $75,000.

B. C., Vancouver—PLANT—Fibreweld Processes Ltd., 995 W. 6 Ave., plant for mfg. of hardwood products to Kennedy and Manson, New Westminster. $60,000. Arthur Pearson, 350 W. Hastings St., Vancouver, engr. CD 7/31—ENR 8/15.

B. C., Vancouver—FACTORY — Vancouver Machinery Depot & Vancouver Iron Works, Ltd., 1155 W. 6 St., factory to Dominion Const. Ltd., 150 West 1, About $70,000. CD 7/25.

N. B., Woodstock—WAREHOUSE—Woodstock United Farmers Ltd., Woodstock, warehouse to E. A. Caldwell, Edmonton. $60,000.

Ont., London — WAREHOUSE — Brewers Warehousing Ltd., 350 Bay St., Toronto, warehouse at 295 Waterloo St., to John Hayman and Sons Co., Ltd., 432 Wellington St., about $60,000. J. M. Watt, 343 Richmond St., archt. CD 8/20.

Ont., Sarnia—PLANT—Polymer Corp. Ltd., No. 4 Hy., plant expansion to R. W. McKay, 400 North Front St. About $100,000. CD 7/16—ENR 7/25.

Ont., Ottawa — BAKERY—Morrison-Lamother Bakery, Ltd., 95 Echo Drive, bakery Echo Dr. to Ross-Meagher, Ltd., 7 Echo Dr., About $150,000. C. Burgess, 53 Queen St., archt. CD 12/7/45—ENR 12/27/45.

INDUSTRIAL BLDGS. (Bids Asked, Cont'd.)

★**Que., St. Johns**—PLANT—**Singer Mfg. Co.**, Ltd., 165 St. Paul St., tool and needle plant, to Anglin-Norcross, Quebec, Ltd., 892 Sherbrooke St., W., Montreal, about **$500,000.** T. Pringle & Son Ltd., 485 McGill St., Montreal, engr. CD 8/7—ENR 8/15.

Ont., Toronto — FACTORY — Universal Fur Dressers & Dyers, Ltd., 121 Prescott Ave., 175x400 ft. 1 story, brick, steel, factory on St. Clair Ave., W. North York to Finley W. McDachlin, Ltd., 195 Fairbank Ave. About **$150,000.** J. I. Brenzel, 41 Camberwell St.

Que., Ville La Salle—FACTORY—Foxboro Co. Ltd., 260 St. Patrick St., factory to A. F. Byers Constr. Co., Ltd., 5675 Western Ave., Montreal. **$121,000.** CD 5/21—ENR 6/13.

Que., Windsor—PLANT—Canada Paper Co., Windsor, addn. to factory to Atlas Coast Co. Ltd., 679 Belmont St., Montreal. About **$75,-000.** A. L. Berry, 1502 St. Catherine St., W., Montreal, archt. CD 8/22/45—ENR 9/13.

Que., Quebec City — WAREHOUSE — J. B. Laliberte, Ltd., 145 St. Joseph St., 5 story rein.-con. frame warehouse bldg. on Blvd. Charest, to Crysanthe Jobin, Ltd., 182 Latourelle St. About **$160,000.** Aungst & Marchand, 105 Cote de la Montague, archt. CD 6/6

Sask., Saskatoon—WAREHOUSE—Canadian Fairbanks-Morse Co., Ltd., brick warehouse to H. J. Tubby, 1010 Lorne Ave., About **$55,000.** Webster & Gilbert, C. P. R. Bldg., archt. CD 7/8.

UNCLASSIFIED

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BIDS ASKED

Bids Asked September 3

Sask., Regina—ICE HOUSE—Canadian National Rys., B. Wheelwright, ch. engr., 360 McGill St., Montreal, Que., 2,000 ton ice house. $50,000.

Miss., Jackson—SWIMMING POOL, etc.—City, L. Speed, mayor, D. B. Sharron, comr., swimming pool and bathhouses, game house and tennis courts at Riverside Park. $100,-000. Fort & White, Medical Bldg., archts. CD 2/6—ENR 2/21.

N. Y., Idlewild—ELECTRIC SYSTEMS, etc.—Comrs. Marine & Aviation, Pier 2, foot of Battery Pl., North River, Manhattan, Zone 4, Contr. 2492, electrical, telephone and communications conduit sys. at Municipal Airport, etc., Contr. No. 29. Downer, Green & Carrillo, 30 Rockefeller Plaza, Manhattan, Zone 20, engrs. Plans deposit $15.

Pa., Phila.—STATION—City Transit Dpt., City Hall Annex, and Phila. Transportation Co., Mitten Bldg., Margaret-Orthodox station, Frankford High Speed Line addns., alterations, $358,000. G. R. Exley, Transit Dpt., dir.

Bids Asked September 9

★**Calif., Los Angeles**—GAS PIPE LINE—Southern California Gas Co. & Southern Counties Gas Co., 810 S. Flower St., 214 mi. 30 in. gas pipe line, Santa Fe Springs to Blythe, over $500,000.

Penn., Canonburg — ATHLETIC FIELD — Bd. Educ., athletic field, 2 steel and concrete stadiums, 51x271 ft. dressing rooms, locker rooms, steel fencing, pump house, ticket booth. $100,000. Plans deposit $5. Ackley Bradley & Day, 200 Chestnut, Sewickley, archt. CD 3/20—ENR 3/28.

Bids Asked September 12

Ill., Chicago—SUBWAY—City, Subways & Super Hys., 20 N. Wacker Dr., waterproofing subway structures Dearborn St. subway, Contr. W-3. Plans deposit $25. CD 2/5—ENR 2/7.

Bids Asked

Mass., Brockton — RADIO FACILITIES — Brockton Enterprise, 60 Main St., Boston, J. William Beal & Sons, archt., 185 Devonshire St., Boston, 35x50 ft. 1 story concrete and cinder blocks transmitting facilities control plant, incl. steel tower. CD 4/18.

★**Texas**—OIL PIPELINE CARRIER—Atlantic Pipe Line Co., Midland, 50 mi. 8 in. crude oil pipeline carrier between Crane and Midland, $500,000.

SOON LETS CONTRACT

Georgia — POWER LINES — Central of Georgia Elec. Membership Corp., Jackson, 277.9 mi. rural power lines, Butts, Jones, Bibb, Jasper, Lamar, Coweta, Putnam, Fulton, Henry, Morgan, Fayette, Spalding, Walton Counties. Plans deposit $25. Southern Engrg. Co., 1070 Spring St. N.W., Atlanta, engrs. CD 6/14—ENR 6/27.

Tex., Houston — WHARF EXTENSION — Horton & Horton, 1230 Baker St., wharf exten. **$45,000.** H. E. Bovey, c/o owner, engr. CD 10/10—ENR 11/11.

LOW BIDDERS

N. Y., St. George—FERRY TERMINAL—Dpt. Marine & Aviation, Pier A, North River, New York, Aug. 20, temporary ferry terminal facilities, from Lenmar Constr. Co., 232 Varet St., Brooklyn. **$185,000.** CD 8/13.

Pa., Pittsburgh—ATHLETIC FIELD—Bd. Educ., Scott Twp., Washington Ave. Exten., Glendale, Pittsburgh, athletic field, bleachers, from Pittsburgh-Des Moines Steel Co., Neville Island, Pittsburgh. **$41,525.** J. L. Hopp, 400 Hazel Dr., Zone 16, archt.

CONTRACTS AWARDED

Fla., Jacksonville — BROADCASTING STATION—Jacksonville Broadcasting Co., Gulf-Life Ins. Bldg., 300 ft. steel towers, transmitter bldg., F.M. radio broadcasting plant, to O. P. Woodcock, Florida Theatre Bldg., and The Windcharger Corp., E. 7 and Division Sts., Sioux City, Ia. **$140,000.**

La., Jena—GAS TRANSMISSION SYS.—Town, natural gas transmission and distribution sys., to R. M. Mitchell, Box 1154, Shreveport 90. **$83,975.** CD 7/17—ENR 7/25.

Me., De Blois—Dpt. Inland Fisheries & Game, State House, Augusta, 5x100 ft. concrete fish pools, rearing plant, to W. Hinman, North Anson, **$124,800.** CD 1/23—ENR 2/7.

O., Bryan—PIPE LINE TERMINAL—Sinclair Refining Co., 630 5 Ave., New York, pipe line terminal, six 10,000 barrel oil storage tanks, along U. S. Route 127, to Weaver Constr. Co., Bryan. **$100,000.**

Okla., Claremore—GUNNERY RANGE—Bd. Affairs, Capitol, Okla. City, Indoor gunnery range at Oklahoma Military Academy, to L. E. Smith Constr. Co., Daniels Bldg., Tulsa, **$44,720.** A. M. Atkinson, Thompson Bldg., Tulsa, archt.

Texas—TRANSMISSION LINES—Fellsfalls Electric Cooperative, Rosebud, 21.8 mi. rural electric power transmission lines, Falls Co., force account, approx. **$40,000.**

Tex., McAllen—RADIO STATION—Valley Broadcasting Assoc., Inc., McAllen, constructing standard radio broadcasting plant. Purchase & hire. **$75,000.** CD 12/8/44—ENR 12/28/44.

Tex., McAllen—SWIMMING POOL—McAllen Country Club, Inc., c/o V. E. Neuhaus, rein.-con. swimming pool, own forces. **$40,000.** CD 3/29—ENR 4/18.

Tex., Manchester—PIPELINE—City Industrial Gas Co., Commerce Bldg., Houston, 3 mi. pipeline to connect Magnolia Park gas sys. with Refugio gas field main line, force account, sub-contract. **$100,000.** CD 8/16—ENR 9/5.

Vermont — RURAL ELECTRIC LINES — New Hampshire Electric Co-operative Corp., Plymouth, N. H., 45 mi. rural electric lines, Norton area, Essex Co. Separate contracts. **$95,000.** REA allot.

B. C., Terrace—ELECTRIC SYSTEM—B. C. Power Comm., Victoria, electric distribution sys., day labor. **$55,000.**

COMMERCIAL BUILDINGS

PROPOSED WORK

Ark., Conway—L. S. Brockinton, 1813 Spencer St., plans by J. P. Almand, 1305 Louisiana St., Little Rock, 94 room hotel. **$210,000.**

★**Calif., Inglewood**—Daniel Freeman Memorial Hospital, Inc., c/o C. L. Blek, 307 E. Manchester Rd., 100 bed Daniel Freeman Memorial Hospital, Grace St. and Prairie Ave. **$800,000.**

Calif., San Mateo—Custom Bilt Homes Inc., c/o J. B. Cockcroft Homes Inc., 1440 Burlingame Ave., 32, 3 bedroom residences. **$300,-000.**

Conn., Bridgeport — Bridgeport Land & Realty Co., A. Gorbach, pres., 945 Main St., 500 frame houses, Frenchtown Rd. section, over **$205,000.**

Conn., Bridgeport — Home Bldg. Co. of Bridgeport, Inc., 886 Main St., plans by A. Pavia, 886 Main St., frame housing proj., North Main and North Park section, Jewett, Golden Rod, Englewood, Ruth Sts. Over **$205,-000.** CD 5/24—ENR 5/30.

Conn., New Britain—St. Maurice's R. C. Parish, Rev. A. J. Murphy, pastor, plans by Polak & Sullivan, 1399 Church St., New Haven, 1 story, bsmnt., church, Steele St., **$250,000.**

Conn., New Haven—Yale University, New Haven, plans by P. L. Goodwin, 32 E. 57 St., New York, N. Y., 3 story, stone, Fine Arts addn. Over **$205,000.**

★**Conn., Norwich**—Nicholas Deshefy, Trading Cove, P.O. RFD 7, plans by Chandler & Palmer, 16 Franklin St., 100 5 room frame single homes. **$600,000.**

Conn., Stamford—F. W. Woolworth Co., 75 State St., Albany, 3 and 4 story, 65x175 ft., brick, steel store. **$250,000.** Financing provided. CD 9/29/44—ENR 10/19/44.

Del., Wilmington—E. I. duPont de Nemours & Co., Inc., Nemours Bldg., plans by A. Embury, 2nd, 150 E. 61 St., New York, 21, N. Y., clubhouse, golf course and swimming pool. Over **$250,000.** Financing provided.

Ga., Atlanta—Co-operative Apartments, Inc., c/o J. W. Newton, pres., 203 Healey Bldg., plans by R. J. J. Locatell, 664 Spring St., N. W., 2 and 3 story, 28 unit, brick, concrete, steel apartments, over **$200,000.**

★**Ga., Atlanta**—Davison-Paxon Co., 180 Peachtree St., plans by H. M. Heatley, c/o owners, 4 story, glass, fireproof department store, over **$500,000.** Ketchum-Gina & Sharp, 5 E. 57 St., New York, N. Y., consult. archts. CD 10/29—ENR 11/8.

Ga., Atlanta—Emory University, Emory University Gardens, 2 brick, concrete, steel dormitories. **$365,000.** Financing provided.

Ga., Augusta—Raylass Dpt. Stores, 37th Ave., New York, N. Y., 1 or 2 story, 52x280 ft., concrete, steel department store. **$300,000.** Financing provided.

Ga., Augusta—Southern Bell Telephone Co., Hurt Bldg., Atlanta, plans by Shutze & Armistead, Candler Bldg., Atlanta, telephone exchange bldg. addn. **$375,000.**

★**Ill., Moline**—C. W. Peterson, 2407 18 R. Moline, garage, bowling alley, 1900 block on 5 Ave., **$500,000.**

Ia., Iowa City—Mercy Hospital, Sister Mary Rose, supt., 6 story, brick, steel, concrete, 100 bed hospital wing addn. **$210,000.**

★**La., Baton Rouge**—Mid-State Const. Co., Alexandria, 500 modern homes and community center. **$4,500,000.**

★**Mass., Brighton (Boston P.O.)**—Franciscan Missionaries of Mary, 150 Orient Ave., Boston, plans by J. E. Kelley, 44 Bromfield St., Boston, brick, steel, stone home for Convalescents, chapel and convent, Warren St., and Commonwealth Ave. **$1,200,000.** Financing not provided. CD 1/24—ENR 1/31.

Mass., Newburyport—Immaculate Conception Parish, J. J. Mooney, pastor, 7 Court St., plans by Edward T. Graham, 171 Newbury St., Boston, 2 story brick, steel, concrete school on High St. **$250,000.** CD 4/18/45—ENR 6/14/45.

★**Mich., Bay City**—Mercy Hospital, Bay City, plans 50% completed by Charles J. Sullivan, 2631 Woodward Ave., Detroit, brick, stone, concrete and steel hospital addn. **$500,-000.**

★**Mich., Midland** — Smith-Bridgman Co., Flint, plans 25% completed by Louis C. Kingscott Assoc., Kalamazoo, brick, steel, rein.-con. department store. **$500,000.**

Miss., Greenville—First Baptist Church, c/o pastor, Greenville, plans completed by W. R. Burk & Assoc., Pan American Bldg., New Orleans, La., church. **$300,000.**

Mo., Kansas City—Poindexter-Wilson Inv. Co., H. K. Poindexter, pres., 801 Broadway, altering 222 room Coats House hotel. **$250,000.**

★**Mo., Springfield**—St. Louis-San Francisco Ry. Co., Jefferson & Olive Sts., plans by E. Hawkins, 402 E. Elm St., hospital. **$700,-000.** Financing provided. CD 8/9—ENR 8/15.

N. J., Audubon—Audubon Methodist Church, Rev. W. W. Morrow, pastor 220 Wyoming Ave., church. **$250,000.**

N. J., Elmer—Owner, c/o P. E. Krammis, chn., Monroeville, plans by C. H. Danehower and W. and W. T. Mayo, Wilson Bldg., Camden, hospital. Over **$205,000.**

N. J., Haddonfield—Tavistock Country Club, c/o H. J. Meyer, plans by G. Von Uffel, 136 Haddon Ave., Haddonfield, club, 106 3 Ave. Over **$205,000.** Financing provided.

N. J., Trenton—Paul Sander, 814 S. Broad St., residential development. over **$205,000.**

Okla., Okla City—Congregation Emanuel, Oklahoma City, plans by Sorey, Hull & Sorey, First National Bldg., Jewish synagogue, N. W. 36 and Shartel Aves. **$250,000.** Financing provided.

★**Ore., Astoria**—Astoria Builders, Inc., 565 Duane St., plans by E. Saarinen and Ebba Wicks, Astoria, 80 houses in Tapiola Park area. **$500,000.** Financing provided.

Ore., Portland—J. A. Hiller, S. W. Canyon Rd., 40 houses, south of Bertha-Beaverton Hy. **$350,000.**

★**S. C., Spartanburg**—Spartanburg Chamber of Commerce Hotel Comm., c/o W. J. Brown, chr., Spartanburg, 200-room hotel. **$1,500,000.** Financing not provided.

★**Tenn., Knoxville** — Rev. I. E. Wishant, Cross Valley Rd., 3 story, hospital, **$2,000,-000.** Financing not provided.

Tenn., Memphis—Pauline & Moore, Memphis, plans by W. C. Lester, Dermon Bldg., 6 story, brick, concrete, steel apartment bldg., containing 68 efficiency apartments, **$350,000.** Financing provided.

Tex., Dallas—C. W. Deising, 2904 W. Davis St., addnl. frame type residences. **$275,000.** Financing provided.

Tex., Dallas—Middleton A. English, 3301 Preston Rd. Dallas, plans under way, constructing frame type residences in Walnut Hills area. **$325,000.** Financing provided.

LAST MINUTE CONSTRUCTION REPORTS

WATER SUPPLY

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked September 6

Va., Denbigh—Hampton Roads Sanitation Dist. Comn., Flatiron Bldg., Norfolk, constructing Center Ave. and Hilton School pump. stations of Warwick County trunk sewer. Greeley & Hansen, 6 N. Michigan Ave., Chicago, Ill., archts.

Bids Asked September 7

Mass., Weston—Town, Bd. Selectmen, Town Hall, watermains, appurtenances for water sys. addns. Plans deposit $10. Metcalf & Eddy, 1300 Statler Bldg., Boston, engrs.

Bids Asked September 9

Tex., Moulton—City, E. C. Fahrenkamp, mayor, City Hall, drilling, casing, developing water supply well. Plans deposit $15. CD 7/12/45—ENR 7/26/45.

Bids Asked September 11

Mass., Boston—Commonwealth of Mass., 20 Somerset St., Contrs. 117A and 117B, constructing Shafts 6 and 7 of City Tunnel Section of Hulton Aqueduct, Newton and Boston. Plans deposit $10.

LOW BIDDERS

Mass., Hanson—Town, Bd. Selectmen, Town Hall, Aug. 20, watermains, appurtenances, from Bay Constr. Co., 146 Summer St., Boston. **$42,500.** CD 85—ENR 8/15.

N. C., High Point—City, R. S. Braden, mgr., WW and sewer imprvts., from Boyd & Goforth, Inc., 617 N. Smith St., Charlotte. **$24,185.** W. F. Freeman, engr. CD 4/4—EN 4/18.

N. C., Landis—Town, L. A. Corriher, mayor, Aug. 16, WW sys., Sect. 1, from Blythe Bros. Co., 424 S. Brevard St., Charlotte. **$115,534.** CD 8/9.

Tex., Edinburg—City Water Bd., Edinburg, rejected bids June 27,, transite or c.i. watermains. L.B. **$87,746.** CD 7/2—ENR 7/11, under LB.

CONTRACTS AWARDED

N. J., Burlington—Burlington Twp. Com., watermains, to Charles S. Moses, Edgewater Lane, Edgewater Park. Over **$22,500.** Awarded 8/21. Sherman & Sleeper, 501 Cooper St., Camden.

Tex., Bellaire—A. Zindler, 1019 Congress St., Houston, c.i. waterlines, own forces. **$32,000.**

SEWERS, WASTE DISPOSAL

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked September 3

Ill., Peoria—Greater Peoria Sanitary Dist., foot of Darst St., Proj. 4SD, 7,200 lin. ft. 10 and 8 in. sanitary sewers, appurtenances, $28,000; Proj. 5SD, 3,760 lin. ft. 10 and 8 in. sanitary sewers, appurtenances, $17,300. Plans deposit $20. Bids 6/17 rejected. J. R. Longley, dist. engr. CD 6/17—ENR 7/25, under LB.

Bids Asked September 4

★**Ind., Gary** — Carnegie-Illinois Steel Co., 208 S. LaSalle St., Chicago, Ill., **sewage** disposal plant to prevent polluting Lake Michigan harbor, $3,000,000. W. F. Hall, c/o owner, engr.

Mass., Newton—City of Newton, 1000 Commonwealth Ave., Newton Centre, sanitary sewers in various streets. $75,000. William S. Pratt, Newton, city engr. CD 2/21—ENR 3/7.

Bids Asked September 10

Calif., San Leandro—City, City Hall, storm sewer Davis St. between Gardner Blvd. to San Francisco Bay. Over $75,000. Plans deposit $10. C. P. Martin, city engr.

Bids Asked September 11

Calif., Los Angeles—City, City Hall, repairing central outfall sewer, Sta. 303 plus 45 to Sta. 410 plus 39, $160,000. L. Aldrich, city engr.

Bids Asked

Calif., Lomita Park (P.O. San Mateo)—Lomita Park & Capuchino Sanitary Dist., Fire House, interceptor sewer to the Capuchino Interceptor Sewer. Plans deposit $10. E. W. Waters, Jr. of James & Waters, 1319 Howard Ave., Burlingame, engr. CD 8/1—ENR 8/8.

Conn., New London—City, Municipal Bldg., W. J. Ruddy (selected list bidders) storm sewers in Garfield Ave., Grand, Elm, Mt. Pleasant and Rogers Sts. $60,000. Kenneth H. Holmes, Main St., engr. CD 2/27/45—ENR 3/13/46.

N. J., Beach Haven — Longbeach Twp., Brant Beach, Beach Haven, sewage treatment plant and pumping station. $100,000. Thomas J. Taylor, Brant Beach, archt. William A. Goff, 1617 Penna. Blvd., Phila., Pa., engr. CD 4/26/43—ENR 4/29/43, under N. J., Long Beach.

Calif., Arcadia—City, City Hall, Aug. 20, 20 mi. 8- to 18-in. vitr. clay sanitary sewer trunk lines, various streets, from Mike Miller Co., 877 N. Bunkerhill Ave., Los Angeles. **$347,129.** CD 8/13.

N. C., Landis—Town, L. A. Corriher, mayor, Aug. 16, sanitary sewerage sys., Sect. 2, from Blythe Bros. Co., 424 S. Brevard St., Charlotte. **$101,937.** Received no bids, sewage treatment plant, Sect. 3, will readvertise. CD 8/9.

Tex., Wills Point—City, J. E. Howell, mayor, City Hall, rejected bids Aug. 12, sanitary sewer lines. L.B. **$44,000.** Will readvertise. CD 8/20—ENR 8/22, under LB.

CONTRACTS AWARDED

Del., Wilmington — New Castle Co. Levy Court, Municipal Bldg., sanitary sewers, disposal station at Idela, to Pleasanton & Edgell Inc., Dover. **$68,850.** Awarded 8/22. J. I. Cahalan, ch. engr.

Ia., Melbourne—City, A. L. Moseback, clk., City Hall, sewers, to Chas. D. Nolan, 1003 20 S.E., Cedar Rapids. **$441,132.** Bids 8/15. CD 7/31—ENR 8/8.

Tex., Bellaire—A. Zindler, 1910 Congress St., Houston, sanitary sewers, own forces. **$45,000.**

BRIDGES

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked September 10

Kansas—State Hy. Dpt., Osborne, steel beam spans Br. 38.7, Proj. F-520 (10), Russell Co. R. C. Keeling, Topeka, state hy. engr.

Bids Asked September 24

D. C., Wash.—District Comrs., District Bldg., reconstructing bridge carrying Baltimore & Ohio R.R. over Riggs Rd. N.E., F.A.P. FGI-52-(1). Plans deposit $10; adv. ENR 8/29. CD 1/27/44—ENR 2/10/44.

LOW BIDDERS

Florida—State Rd. Dpt., Tallahassee, rejected bids Aug. 15, 39 bridges, 0.65 mi., Job 8711-109, Dade Co. L.B. **$363,300.** Will readvertise. CD 8/20—ENR 8/22.

Florida—State Rd. Dpt., Tallahassee, Aug. 22, 4 bridges, 0.159 mi. Okeechobee Co., from S. M. Wall, Gainesville. **$92,136.** CD 8/2—ENR 8/8.

★**Ill., Chicago**—City, Dpt. P. Wks., City Hall, rejected bids July 31, temporary bridge, West Van Buren St. L.B. **$628,992.** CD 8/6—ENR 8/15, under LB.

Iowa—State Hy. Comn., Ames, Aug. 20, bridges and culverts, S-177(1), Mahaska Co., from Ben Cole & Son, Ames, **$69,669;** F-881 (1), Marshall Co., from Weldon Bros., Iowa Falls, **$49,721.** CD 8/5—ENR 8/15.

Michigan—State Hy. Dpt., Lansing, Aug. 22, rein.-con., steel bridge over Clinton River and 1.039 mi. grading and drainage, Oakland Co., from Oak Constr. Co., 520 E. Lincoln Ave., Royal Oak. **$148,855.**

North Carolina—State Hy. & P. Wks. Comn., Raleigh, rejected bids Aug. 15, bridge over Bear Creek, county road between Lagrange and Seven Springs, Lenoir Co. L.B. **$24,003.** CD 8/5.

†**Oregon**—Pub. Roads Admin., Bedell Bldg., Portland, received no bids Aug. 20 rein.-con. bridge and grading Clackmas River Rd., Mt. Hood National Forest. CD 8/9.

Wash., Seattle — City, County-City Bldg., Zone 4. Aug. 22, bridge on Magnolia Blvd. across 32 Ave. W. from General Constr. Co., 3840 Iowa St., Zone 4. **$76,015.** Est. $66,538. CD 8/14.

STREETS AND ROADS

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked September 3

Iowa—State Hy. Comm., Ames, maintenance resurfacing 7.15 mi. Rte. 184 from Randolph to Imogene, 13 mi. Rte. 333 from U. S. 275 to U. S. 59, M-4362, Fremont Co.; 11.75 mi. Rte. 203 from Blanchard to Rte. 2, 5.1 mi. Rte. 333 from U. S. 59 to Rte. 343, 1.0 mi. Rte. 343 from Northboro to Rte. 333, M-4363, Page Co.; 15.6 mi. Rte. 49 from Lenox to west junction with Rte. 319, 5.2 mi. Rte. 319 from Conway to Rte. 148, M-4364, Taylor Co.; 24.5 mi. Rte. 1 from Brighton to Johnson Co., 119.2 mi. Rte. 22 from Wellman to Lone Tree, M-5321, Washington Co. F. R. White, hy. engr.

Bids Asked September 3

Massachusetts — State-County-Town. 100 Nashua St., Boston hy. work on Slab Bridge Rd., Freetown, $40,000 hy. work and bridge work on West Main St., Shrewsbury, $42,000; hy. work on Main St., Waltham, $45,000; hy. work on Main St., Hatfield, $42,000. Plan deposit $5.

Mich., Hazel Park—City, City Hall, constructing concrete curbs, and black top pavement together with necessary excav., drainage and structures on various streets. Plans deposit $10. Hubbell, Roth & Clark, Inc., 2640 Buhl Bldg., Detroit, engrs.

Bids Asked September 4

Mass., Newton—City of Newton, 1000 Commonwealth Ave., Newton Centre, rein.-con. reconstructing 3,206 ft. Cherry St. $60,000. Willard S. Pratt, Newton, city engr. CD 2/21—ENR 3/7.

Bids Asked September 5

Michigan—State Hy. Dpt., Lansing, grading, drainage, 22 ft., concrete paving 7.195 mi. from N. Bradley north to county line, Proj. F 56-29C-1 on M-18, Midland Co. Plans deposit $3.

Wash., Ephrata—City, City Hall, 80,000 ft. curbs and 34,000 ft. 6- to 21-in storm sewers. Plans deposit $10. Extended date. Parker & Hill, Smith Tower, Seattle Zone 4, engrs. CD 8/22.

Bids Asked September 9

Tex., Corpus Christi—Nueces Co., c/o Judge, Courthouse Bldg., 9.65 mi. caliche base, prime coat and single asphalt surface treatment, $60,000. W. G. Staggs, co. engr. CD 1/24—ENR 1/31.

Bids Asked September 10

Kansas—State Hy. Dpt., Minneapolis, light type surfacing, selected embankment material and subgrade reconditioning 16.039 mi. Proj. S 61 (2), Ottawa Co.; light type surfacing 14.899 mi. Proj. S-35 (1); 13.862 mi. Proj. S-54 (1); 11.897 mi. Proj. S-115 (3); all foregoing Washington Co.; 4.774 mi. Proj. S-38 (1), Cloud Co.; bank protection Proj. S-266 (1), Dickinson Co.

Kansas—State Hy. Dpt., Osborne, light type surfacing 1.35 mi. Proj. S-287 (10); 1 mi. Proj. S-289 (1); 7 mi. Proj. S-290 (1); 5.886 mi. Proj. S-291 (1); 6.65 mi. Proj. S-292 (1), all foregoing Decatur Co.; 5.574 mi. Proj. S-260 (1), Gove Co.; 13.932 mi. Proj. S-464 (1); 13.579 mi. Proj. F 520 (9); 6.795 mi. Proj. S-79 (1); 12 mi. Proj. S 79 (2) all foregoing Osborne Co.; 11.975 mi. Proj. S 262 (1), Trego Co.; single asphalt surface treatment 3.126 mi. Proj. K-3139, Sheridan Co.; grading 11.975 mi. Proj. S 262 (1), Trego Co.; 5.574 mi. Proj. S 260 (1), Gove Co.

Washington—State Hy. Dpt., Olympia, grading, asphaltic concrete paving, concrete sidewalks and street lights 0.912 mi. Primary State Hy. 7, Grant Co. clearing grubbing, grading, concrete paving 0.466 mi. secondary State Hy 1-K in vicinity of Des Moines, King Co., non-skid single seal 23.85 mi. Primary State Hy. 10, Omak to Tonasket, Okanogan Co., clearing, grubbing, grading, surfacing 11.017 mi. Secondary State Hy. 6-B, from junction with Primary State Hy. 6 to Davis lake, Pend Oreille Co. C. B. Shain, **State Hy.** Dir.

Massachusetts—Commonwealth of Mass., 100 Nashua St., Boston, reconstructing state hy. in Dartmouth and Westport, $400,000. Plans deposit $10.

Bids Asked September 17

Miss., Meridan—City, c/o mayor & Bd. Comrs., grading, curbing, paving various streets, $450,000. J. C. Watts, engr. CD 8/26.

LOW BIDDERS

★**Florida**—State Rd. Dpt., Tallahassee, Aug. 22, imprv. 3.56 mi. Pasco Co., from H. E. Wolfe Constr. Co., St. Augustine, **$210,249***** 4.628 mi. and 1.528 mi., Okeechobee Co., from Belchel Oil Co., 1221 Biscayne Ave., Miami, **$116,884*****9.02 mi., Pasco Co., from Macasphalt Corp., Lakeland, **$69,027*****9.96 mi., Orange Co., from J. W. Conner & Sons, 40 St. and E. Broadway Ave., Tampa, **$105,289***** 1.438 mi., Gadsden Co., from Faulk & Coleman, Cocoa, **$50,364.** CD 8/2—ENR 8/8.

Iowa—State Hy. Comn., Ames, Aug. 20, imprv. 3.379 mi. F-812(1), Taylor Co., from Central Constr. Co., Indianola, **$47,561;** 1.296 mi. F-811(4), Webster Co., from E. M. Duesenberg, Inc., Clear Lake, **$106,554.** CD 8/5—ENR 8/15.

★**Kentucky**—State Dpt. Hys., Frankfort, Aug. 20, imprv. 12.979 mi. Allen Co., from Ellis, Kelly & Co., Owensboro, **$116,144*****5.83 mi. Bath Co., from A. W. Walker & Son, Mt. Sterling, **$54,212*****5.887 mi. Bell Co., from Arnett Constr. Co., Berea, **$158,070*****7.412 mi. Clay Co., and 2.774 mi. Fayette and Jessamine Countines, from G. H. Cheek Constr. Co. McClure Bldg., Frankfort, **$390,538** and**$100,827** respectively***16.225 mi. Green and Carter Counties, from Gay-Coleman Constr. Co. & Middle States Bit. Corp., Ashland, **$159,092***** 7.847 mi. Marshall Co., from White Consolidated Inc., 1735 W. Fullerton Ave., Chicago, Ill., **$109,291*****9.066 mi. Webster Co., from Ralph E. Mills Co., 410 Ann Ave., Frankfort, **$191,583** ***5.821 mi. Lewis Co., from Arnett Constr. Co., Berea, **$85,117*****5.321 mi. Lewis Co., from R. M. Robinson & J. B. Towles, Owensboro, **$52,900*****17.041 mi. Harlan and Leslie Counties, from Bresline Constr. Co., Louisville, $199,040. CD 8/12.

STREETS AND ROADS (Low Bidder, Cont'd.)

★**Michigan**—State Hy. Dpt., Lansing, Aug. 22, imprv. 1.963 mi. Livingston Co., from L. Garavaglia, Centerline, **$137,828*****imprv. 4.223 mi. Iosco Co., from A. S. Laffler Gravel Co., Davison, **$45,662*****3.259 mi. Kalamazoo Co., from Globe Constr. Co., 462 Portage St., Kalamazoo **$42,070*****4.844 mi. Sanilac Co., from E. B. Schwaderer, Cass City, **$349,382***** 4.87 mi. Hillsdale Co., from Lewis & Frisinger Co., 214 E. Madison St., Ann Arbor, **$415,319.** CD 8/12.

★†**Oregon**—Pub. Roads Admin., Bedell Bldg., Portland, Aug. 26, surfacing and bituminous surfacing 21 mi. Willamette Hy., Deschutes and Willamette Forests, from E. C. Hall Co., and J. C. Compton, Rt. 6, Box 630, Portland, **$789,395*****grading, surfacing, bituminous surfacing 7.4 mi. Willamette Hy., Willamette National Forest, from J. N. and M. J. Conley, 4617 S. E. Milwaukie St., Portland, **$285,110***** clearing, grubbing, grading, draining Clackamas River Rd., Mt. Hood National Forest, from Slate Constr. Co., Albany, **$347,178.**

Vermont—State Hy. Dpt., Montpelier, August 12, 1.21 mi. crushed gravel mixed-in place surface course, Hardwick, from B. A. Simeone, Inc., Medford, Mass. **$65,503.** CD 8/16.

CONTRACTS AWARDED

†**Oregon**—U. S. Forest Service, New P. O. Bldg., Portland, constructing timber access roads: 6.5 mi. Allingham Rd., Deschutes Forest, Deschutes Co., **$50,000**; 4.7 mi. Arvid Nelson Rd., Ochoco Forest, Crook Co. **$60,000**; 7 mi. Eden Rd., Umatilla Forest, Umatilla Co., **$100,000**; 10 mi. Sheep Creek Rd., Wallowa Forest, Wallowa Co., **$82,000**; 2 mi. Fall Creek Rd., Willamette National Forest, Lane Co., $45,000, force account. Grand total $327,000.

Tex., Bellaire—A. Zindler, 1019 Congress St., Houston, concrete street paving, own forces. Approx. **$46,000.**

Utah—State Rd. Comn., Salt Lake City, bridge, imprv. 4.09 mi. Weber Co., to Hunsaker Sand & Gravel Co., Brigham City, **$92,454** est. $90,124; 11.456 mi. Sanpete Co., to Floyd Whiting, Murray, **$132,612** est. $132,980. CD 8/12.

†**Washington**—U. S. Forest Service, New P. O. Bldg., Portland, Ore., timber access roads; 5 mi. West Fork Humptulips Rd., Olympic National Forest, Grays Harbor Co., **$60,000**; 12 mi. Rattlesnake Rd., Snoqualmie National Forest, King Co., **$160,000**; 8 mi. Little Wenatchee Rd., Wenatchee national forest, Chelan Co., **$78,000**, force account. Grand total $298,000.

N. B., Moncton—City, paving various city streets, to Terminal Const. Co., Ltd., 930 Main St., $184,706. J. B. Martin, c/o owner, engr. CD 5/22—ENR 6/13.

EARTHWORK, WATERWAYS

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked September 3

Massachusetts—Commonwealth of Mass., 100 Nashau St., Boston, dredging of areas adjacent to Town Wharf in Plymouth Harbor, Plymouth. $25,000. Plans deposit $2. CD 2/15—ENR 3/7.

Bids Asked September 16

Ohio—Ohio Conservation Dpt., Columbus, dam, Adams Co. Plans deposit $5.

Bids Asked September 20

†**Washington**—Bureau Reclamation, Denver, Colo., Crest railings with lighting for Grand Coulee Dam, Columbia Basin Proj., Spec. 1419. Extended date. CD 8/6—ENR 8/15, under Colo., Denver.

LOW BIDDERS

†**Louisiana, Mississippi and Missouri**—U. S. Eng. 800 U. S. Court House and Custom House, St. Louis, 1, Mo., indefinitely postponed bids to have been opened Aug. 16, constructing bank protection, Mississippi River at Cape Girardeau, Wilkinson and Danby Landing, Ser. No. 23-065-47-24. CD 8/13.

†**Tex., Port Isabel**—U. S. Eng., 606 Santa Fe Bldg., Galveston, cancelled bids to have been opened Aug. 27, dredging Port Isabel Turning Basin, Brazos Island Harbor, Inv. No. 41-243-47-26. CD 8/6—ENR 8/15.

★†**Washington**—Bureau Reclamation, Coulee Dam, Aug. 20, first 12.3 mi. East Low Canal for Columbia Basin Irrigation Sys., Spec. 1422, from Utah Constr. Co., 5250 S. State St., Salt Lake City, Utah, and Winston Bros. Co., 1470 N. W. Bank Bldg., Minneapolis, Minn. **$3,977,136.** CD 7/1—ENR 7/11.

Wash., Seattle-City — County-City Bldg., Zone 4, Aug. 22, drainage of Lake Youngs storage area by filling from T. Scalzo, 3211 Airport Way, **$54,641.** Est. $68,301. CD 8/14—ENR 8/22.

CONTRACTS AWARDED

Tex., Lancaster—Dalworth Soil Conservation Dist. 1st National Bank Bldg., drainage ditches, revetment, rock retaining walls, grading, earthern water tanks, own forces. **$100,000.** CD 8/14.

LATIN AMERICA

Venezuela—Dpt. P. Wks., E. Miery Teran, minister, Caracas, dredging La Guaira and Puerto Cabello ports, to Stevens Co., Caracas. **$450,000.** CD 4/8—ENR 4/18, CD 4/25—ENR 5/16.

Venezuela, LaGuaira—Dpt. P. Wks., E. Mier y Teran, minister, Caracas, lengthening and reinforcing 500 meters breakwater, northern side of La Guida port, to Smith Engrg. Contracting Co. and Stevens Co. Assoc., Caracas. **$4,500,000.** CD 2/26—ENR 3/21.

AIRPORTS & AIRBASES

LOW BIDDERS

Mo., Kansas City — AIRPORT — City, c/o H. H. King, dir. P. Wks., City Hall, Aug. 13, grading at municipal airport, from George Bennett, 1520 Central Ave. and Storms-Frew Const. Co., City Bank Bldg. **$185,875.** CD 8/7.

PUBLIC BUILDINGS

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked September 9

Kan., Holton—City, power plant imprvs. $100,000. Black & Veatch, 4706 Broadway, Kansas City, Mo., engrs. CD 9/12/44—ENR 9/21/44.

Bids Asked September 10

Mo., Fulton—City, coal and ash handling equipment, municipal light plant. **$40,000.** Burns & McDonnell, 107 W. Linwood St., Kansas City, Mo., engr.

Bids Asked September 13

†**Washington**—Bureau Reclamation, Custom House, Denver, Colo., oil purifiers for Grand Coulee Powerplant, Columbia Basin Proj., Spec. 1467. (Correction—location of project). CD 8/6—ENR 8/15, under Colorado.

Bids Asked September 14

Tex., Odessa—Ector Co. Ind. School Dist., Odessa, constructing school, Senior High School cafeteria unit, South Side School addn., East Side school addn., negro school addn. Haynes & Strange, Myrick Bldg., Lubbock, engrs. CD 8/23/45—ENR 9/6/45.

Bids Asked September 17

Calif., Bakersfield—Bakersfield Bd. Educ., Bakersfield, 14 room, cafeteria, administration bldg., wood frame grammar school, Truxton Ave. and A St. $205,000. Plans deposit $10. C. H. Biggar, Habersfelde Bldg., archt.

LOW BIDDERS

Mass., Belchertown — Commonwealth of Mass., Dpt. Mental Health, 100 Nashua St., Boston, Aug. 22, brick, steel power plant addn., from Florence & Co., 62 Mt. Vernon St., Reading. **$103,900.** CD 8/7—ENR 8/15.

★**Mich., Detroit**—State, State Office Bldg., Lansing, Aug. 12, brick, steel, stone classroom bldg., at Wayne University, from Esslinger Misch Co., 159 E. Columbia St. **$720,000.** CD 8/5.

Mich., Grand Rapids—State, State Office Bldg., Lansing, Aug. 12, brick, stone, steel, concrete Domiciliary 2 for Michigan Veterans facilities for Veterans Admin., from Strom Constr. Co., Grand Rapids. $460,000. CD 8/5.

★**Mich., Houghton**—State, State Office Bldg., Lansing, Aug. 12, brick, steel, concrete physical education bldg., at College of Mining and Technology, from A. H. Proksch, Iron River. **$650,000.** CD 8/5.

Wash., Bellingham—Western Washington College of Education, Bellingham, general contract men's residence hall, from Chisholm & Elford, 1726 State St., **$261,000**; mechanical, from A. J. Blythe Plumbing & Heating Co., 1313 R. R., **$49,662.** CD 5/24/45—ENR 6/14/45.

CONTRACTS AWARDED

★**Ala., Auburn**—Alabama Polytechnic Institute, c/o Dr. L. N. Duncan, dormitory, to Daniel Constr. Co., 824 7 Ave. S., Birmingham. Approx. **$900,000.** CD 6/11—ENR 6/13.

★**Mo., Warrensburg**—Missouri State Teachers College, Warrensburg, dormitory for men students **$350,000**, for married students **$245,000**, separate contracts. Walter Boschen, 1114 N. 25 St., St. Joseph, archt. CD 2/5—ENR 5/16.

COMMERCIAL BUILDINGS

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked

Tex., Orange—E. I. duPont de Nemours & Co., Orange, dwellings for personnel. $225,000. Golemon & Rolfe, Beaumont, archts. CD 2/28/45—ENR 3/8/45.

LOW BIDDERS

Tex., Midland—A. B. Cole, Midland, project abandoned 5 story, bsmnt. office bldg. $250,000. CD 3/29—ENR 4/18.

CONTRACTS AWARDED

★**Calif., Sacramento**—E. L. Shutt, 1920 Los Robles Blvd., 80 frame, stucco residences, East Del Paso Heights, own forces. **$597,000.**

★**Calif., Santa Ana**—B. D. Pennington, R. V. Carl, purch. agt., Bank of America Bldg., 150 frame, stucco dwellings, Fairview and Bristol Sts., own forces. **$900,000.**

Calif., West Covina—Valley Home Builders, 750 E. Colorado St., Pasadena, 51 frame, stucco 5 and 6 room dwellings, Barbara Pl. near Glendora Ave., own forces. $300,000. H. A. Welch, 2264 Las Tunas Dr., Temple City, archt.

Fla., Davenport—Holly Hill Citrus Products, Inc., c/o H. DiChristani, vice-pres., 40 houses, employee dormitory, own forces, $300,000.

★**Pa., Media**—Girard Constr. Co., County Bldg., residential development, separate contracts, **$770,000.**

★**Pa., Phila.**—Ideal Constr. Co., Market St. National Bank Bldg., residential development, Northeast Phila., separate contracts, **$5,000,000.**

★**Pa., Phila.**—A. P. Orleans & Co., 100 W. Rockland St., 900 residences, Charles and Knorr Sts., separate contracts, **$6,000,000.**

Tex., Dallas—State Fair Assn., Fair Park, Dallas, rehabilitation, remodeling, imprv. Fair Bldgs. Owner builds, **$210,000.** CD 4/5—ENR 4/18.

Tex., McAllen—R. A. Rowland, McAllen, 45 dwellings, force account, **$225,000**; 50 residences, **$250,000.** Owner builds.

INDUSTRIAL BUILDINGS

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked September 5

Pa., Meadville—PLANT—Talon, Inc., Erie, 3 story, 50x320 ft., brick addn. connecting Plants B and D. $200,000. Wilbur Watson & Assoc., 4614 Prospect St., Cleveland, O., engrs. CD 6/5—ENR 6/13.

N. B., Campbellton—Municipality, J. C. Chatterton, mgr., Campbellton, erecting one 1,000 kw. 2,400 volt, 3 phase 60 cycle diesel electric generating plant. CD 3/7—ENR 6/13.

N. H., Nashua—TERMINAL and GARAGE—Blue Line Express Co., c/o Stephen P. Tracy, archt., 6 Davis Court, 1 story, 100x100 ft., brick, concrete express terminal and garage. $55,000. CD 8/12.

Tex., Houston—PLANT—Pacific Fruit Express, 913 Franklin St., cold storage plant. $100,000. J. J. Rodgers, 726 S. P. Bldg., archt. CD 8/20—ENR 8/29.

Bids Asked

Tex., McAllen—FACTORY—C. C. Storm, 201 Wildwood Dr. W., San Antonio, wool insulation mfg. factory, **$60,000.**

Tex., Orange—PLANT—Consolidated Steel Corp. of Texas, Orange, steel plant addn. $350,000. CD 7/16—ENR 7/25.

★**Tex., Orange**—PLANT—E. I. duPont de Nemours & Co., Orange, nylon salt plant addn., $5,300,000; basic salt mfg. plant for nylon, $3,600,000. CD 6/27—ENR 7/11.

SOON LETS CONTRACT

Calif., Berkeley—WAREHOUSE—San Francisco Sulphur Co., 636 California St., San Francisco, soon lets contract warehouse. K. Theill, 580 Market St., San Francisco, engr.

Conn., Norwalk—FACTORY—Charles of the Ritz, Norwalk, 1 and 2 story, brick, steel, concrete factory. $450,000. Fletcher Thompson, Inc., 211 State St., Bridgeport, archt. CD 8/20—ENR 8/22.

LOW BIDDERS

Ga., Atlanta — TERMINAL — McDonough Motor Express, Inc., Meridian, Miss., Aug. 14, trucking terminal, from Herrman Constr. Co., 554 Luckie Ave. **$70,539.** CD 7/25—ENR 8/1.

Ga., Atlanta — SALES-SERVICE — Moore-Briscoe Co., Spring St., N. W., rejected bids July 9, auto sales and service bldg. L. B. **$100,000.** CD 7/22—ENR 8/1.

INDUSTRIAL BLDGS. (Low Bidders, Cont'd.)

Tex., Fort Worth—SHOP, etc.—H. Baum, 304 E. 3 St., constructing shop, auto service and display bldg., from Homer A. Parks Constr. Co., Construction Bldg., Dallas. **$61,000.** Consolidated Architects & Engineers, Fort Worth National Bank Bldg., archts.-engrs.

CONTRACTS AWARDED

Calif., Oakland — WAREHOUSE - MILL—Boorman Lbr. Co., 10035 E. 14 St., 1 story, rein-con. warehouse and mill, own forces. **$55,000.** H. M. O'Neil Co., 610 16 St., engr.

★**Calif., Redondo Beach**—STEAM PLANT—Southern Calif., Edison Co., 601 W. 5 St., Los Angeles, design and construction, 130x240 ft., 55x100 ft. frame, rein-con., brick steam plant, craneways, stacks, tanks, etc., 7 and Hermosa Sts., to Stone & Webster Engrg. Corp., 601 W. 5 St., Los Angeles. **$1,837,000.** CD 5/24—ENR 5/30.

Calif., San Gabriel—FACTORY—P. J. Landvogt, 528 H. Pasqual Ave., 1 story, 100x150 ft., concrete block factory, 800 W. Santa Anita Ave., to Jackson Bros., 3478 W. 8 St., Los Angeles. Approx. **$60,000.**

Del., Wilmington—SHOP and OFFICE—McHugh Elec. Co., 211 W. 8 St., 1 story, 50x100 ft. and 30x80 ft., brick, steel office and shop, to Rupert Constr. Co., 1509 French St., **$60,000.** W. T. Lambon, Jr., 2301 Monroe St., archt.

Ind., Crawfordsville—POWER PLANT—R. R. Donnely & Sons, 350 E. Cermak Rd., Chicago, Ill., 1 story, brick, rein.-con., steel, radial brick stack, power plant, to J. L. Simmons Co., 710 Union Title Bldg., Indianapolis, Ind. **$100,000.** Awarded 8/21. E. H. Clark, 75 E. Wacker Dr., Chicago, Ill., archt.

Ind. Hammond—PLANT—LaSalle Steel Co., 1412-150 St. 1 story, 90x187 ft., steel, brick, steel plant addns., to Hughes-Foulkrod Co., 1505 Rose St., Phila., Pa., over **$100,000.** Theodore S. See, c/o owner, engr. CD 8/16—ENR 8/22.

Ind., Salem—FACTORY—Kraft Foods Co., 40 North St., New York, N. Y. and 500 N. Peshtigo St., Chicago, Ill., 1 story, brick, concrete, steel food factory, to F. H. McGraw & Co., P. O. Box 210, Gary. Est. **$75,000.** A. W. Marshall. c/o contractor, engr.

Mo., St. Louis—PLANT—Combustion Engrg. Co., 5319 Shreve Ave., Zone 15, 1 story, 50x100 ft., steel plant storage addn. to Fruin-Calnon Contg. Ct., 1706 Olive St., Zone 3.

N. J., Landisville—PLANT—Francis H. Leggett & Co., Hudson River and 27 St., New York, design and construction, 1 story, 147x322 ft., 29x280 ft. and 30x180 ft., masonry processing plant, office bldg., and warehouse, to The Austin Co., 19 Rector St., New York, **$300,000.** Awarded 8/19.

N. J., Trenton—PLANT—Bayer Co., 175 Varick St., New York, design and construction 1 story-5 story steel frame tower, brick on concrete block acid recovery plant, to The Austin Co., 19 Rector St., New York. **$115,000.** Awarded 8/20.

N. J., Trenton—DISTRIBUTION STATION, etc.—G. Krueger Brewing Co., 75 Belmont Ave., Newark, 1 and 2 story, 80x90 ft. and 2nd floor 26x26 ft. cinder block distribution station and offices, to Gumina Bldg. & Constr. Co., George Rd., New Brunswick. **$57,000.** Awarded 8/19. Staab & Torrance, 27 Washington St., Newark, archt.

★**O., Lorain**—MILL—National Tube Co., Lorain, installing continuous seamless pipe mill at Lorain plant, to Aetna-Standard Engrg. Co., Home Savings & Loan Bldg., Youngstown. **$1,000,000** or more. Awarded 8/20.

★**Pa., Willow Grove**—PLANT—M. Liuzzi, 506 Lincoln Ave., 1 and 2 story, 48x82 ft., concrete block, brick mfg. plant, separate contracts. **$750,000.**

Tex., Laredo—PLANT—Mills Bennet, Laredo, pressure maintenance plant, in Lopez Feld, own forces. **$60,000.** CD 3/4.

Tex., McAllen—REPAIR SHOP—West Highway Auto Renair, McAllen, auto repair shop, own forces. **$55,000.**

Tex., Marshall — PLANT — Halliburton Oil Well, Marshall, bulk cement unloading and loading plant, own forces. **$70,000.** CD 1/16—ENR 1/31.

Tex., Matador—REPAIR SHOP—H. Traweek, Matador, auto mechanical repair shop, own forces, approx. **$55,000.** M. T. Clements, 429 Waggoner Bldg., Wichita Falls, archt.

Tex., New Braunfels — PLANT — McGaugh Hosiery Mills, New Braunfels, expan. fabric materials mfg. plant mfg. nylon hosiery, force account. **$70,000.** CD 8/23/45—ENR 9/6/45.

Tex., New Braunfels—WAREHOUSE—New Braunfels Producers Co-operative, L. Ehlers, mgr., New Braunfels, masonry type warehouse, to E. Hanz, Rte. 1, approx. **$55,000.**

Wash., Seattle—WAREHOUSE, etc.—J. A. Campbell Co., 1242 6 Ave., Zone 4, 117x170 ft., frame warehouse and baker equipment factory, to E. F. Schuck, 4 and Cherry Bldg., Zone 4. **$75,000.** E. W. Morrison, 711 2 Ave. Bldg., Zone 4, archt.

Man., Winnipeg — GARAGE — Central Auto Wrecking, 397 Logan Ave., 1 story, 60x110 ft., brick, steel, garage, Logan and Stanley Sts., to Henry Borger & Sons, 194 Osborne St., about **$60,000.** L. M. Carrick, 807 Lindsay Bldg., engr.

Ont., Toronto—FACTORY—W. D. Beath & Son, Ltd., 394 Smington Ave., factory addn., 394 Smington Ave., to J. Robert Page, 18 Toronto St., about **$56,000.** Parrott & Tambling, 57 Bloor St. W., archts. W. T. Brickenden & Assoc., 85 Richmond St. W., engr.

Ont., Toronto—GARAGE, etc.—Bell Telephone Co. of Canada, Ltd., 76 Adelaide St. W., 1 story, 120x192 ft., rein.-con., steel, brick garage and service bldg., to Milne & Nicholls, Ltd., 57 Bloor St. W., about **$250,000.** CD 7/26—ENR 8/1.

Ont., Toronto—FACTORY—Canadian Spring Co., 2784 Dundas St., 1 story, 100x235 ft., concrete block, steel factory, Niagara St. and Wellington St. W., to Donlands Const. Co., Ltd., 245 Donlands Ave., about **$80,000.** L. M. Saunders, 26 Queen St. E., archt.

Ont., Toronto — FACTORY — Fuel Oil & Equipment Ltd., 570 Queen St. E., 1 story, 50x365 ft., frame factory, Basin St., own forces. About **$45,000.**

UNCLASSIFIED

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked After September 1

★**Texas**—CRUDE OIL LOOP PIPELINE—Humble Oil & Refining Co., Humble Bldg., Houston, 14 mi. 10 in. crude oil loop pipeline, at Kemper. **$225,000;** 70 mi. 14 in. crude oil loop pipeline, at McCamey. $1,450,000.

Bids Asked September 10

La., Monroe — STREET LIGHTING — City, street lighting sys. $40,000. Burns & McDonnell, 107 W. Linwood Ave., Kansas City, Mo., engrs.

Bids Asked September 11

Ont., North Bay—DAM IMPROVEMENTS—Secy., c/o Dpt. P. Wks., Ottawa, reconstructing apron at Ontario Dam in Temiskaming, Niplising Dist. About $45,000. R. Blais, c/o owner, engr.

Bids Asked September 16

†**Montana-North Dakota** — TRANSMISSION LINES — Bureau Reclamation, Customhouse, Denver, Colo., Glendive-Miles City and Fort Peck-Williston, 115 kva. transmission lines, Fort Peck Proj. and Williston-Garrison Dam, 115 kva. transmission line, Power Transmission Lines Unit, Missouri Basin Proj., Fort Peck Proj., Missouri Basin Proj., Spec. 1411. Extended date. CD 7/3—ENR 7/11.

Bids Asked September 17

Neb., Grand Island—STADIUM—City, stadium, $100,000. Meginnis & Schaumberg, Federal Securities Bldg., Lincoln, archts. CD 7/26/45—ENR 8/9/45.

CONTRACTS AWARDED

Neb., Omaha—STADIUM—City, municipal stadium, to Peter Kiewit Sons Co., Omaha National Bank. **$413,995.** CD 8/15—ENR 8/22.

★**Texas**—CRUDE OIL PIPELINE—Pasotex Pipeline Co., Wink, constructing 102 mi. 10¾ in. crude oil pipeline from near Pecos to Wink, Purchase & Hire. Approx. **$1,350,000.** CD 8/22.

Tex., Midland — GROUND LINES, etc. — Southwestern Bell Telephone Co., Midland, above ground lines and power imprvs., own forces. **$197,000.** CD 8/22.

Tex., New Braunfels—SWIMMING POOL—J. B. Emshoff & Assoc., Camp Warneke, grading, drainage swimming pool, own forces. **$40,000.**

INDUSTRIAL BUILDINGS

PROPOSED WORK

Ala., Birmingham—WAREHOUSE—Frisco Lines, 107 N. 20 St., **56 x 460 ft., 30 x 110 ft.**, concrete, steel, railroad freight warehouse. **$246,000.**

Calif., Redondo Beach—FACTORY—Owner c/o H. C. Light, archt., 739 N. Highland Ave., Los Angeles, masonry factory, spur track, etc. **$250,000.** Means & Bennett, 508 W. Santa Barbara Ave., Los Angeles, consult. engrs.

Calif., San Francisco — LABORATORY — Stauffer Chemical Co., 636 California St., San Francisco, 1 story, rein.-con. or cement block research laboratory. **$100,000.**

Calif., Santa Clara—COLD STORAGE—Storitcold Co., 1300 Webster St., Oakland, plans by F. H. Reimers, 79 Post St., San Francisco 2, 98x260 ft., rein.-con. cold storage bldgs. **$325,000.** J. C. Sly, 268 Market St., San Francisco, consult. engr. CD 8/7—ENR 8/22.

Calif., Vallejo — WAREHOUSE — General Mills, Inc., 180 New Montgomery St., San Francisco, warehouse, loading dock. **$174,000.**

Calif., Vernon — INDUSTRIAL BLDG. — Owner, c/o A. C. Martin & Assoc., 333 S. Beandry Ave., Los Angeles, steel industrial bldg. **$200,000.**

Conn., Norwalk—FACTORY—Charles of the Ritz, Norwalk, plans by Fletcher Thompson, Inc., 211 State St., Bridgeport, brick, steel, drugs, cosmetics, etc. factory. **$450,000.** Financing provided.

★**Del., Wilmington**—EXPERIMENTAL STATION—E. I. duPont de Nemours & Co. Inc., Nemours Bldg., plans by Voorhees, Walker, Foley & Smith, 101 Park Ave., New York, N. Y. and F. A. Godley, 247 Park Ave., New York, N. Y., assoc. archts., experimental station expansion. **$17,000,000.** Jaros, Baum & Bolles, 415 Lexington Ave., New York, N. Y., engrs.

Fla., Jacksonville — WAREHOUSE — C-F Sales Corp., 556 Riverside Ave., 1 story, concrete block, steel, auto parts and accessories warehouse. **$100,000.**

Fla., Miami — PLANT — Foremost Dairies, Inc., c/o mgr., 17 NW 4 St., 2 story, concrete, steel dairy plant. **$250,000.** Financing provided.

Ga., Hapeville — DEPOT — Central of Georgia Railway Co., H. F. Sharpley, ch. engr., 301 W. Broad St., Savannah, depot. track imprvts. **$100,000.**

Ga., Macon—FACTORY—Welding Supplies Inc., c/o C. W. Farmer, pres., oxygen and acetylene gases mfg. factory. **$100,000.**

Ill., DuQuoin—PLANT—DuQuoin Packing Co., DuQuoin, meat packing plant cooling room addn. **$100,000.**

Ill., Joliet — LABORATORY — Blockson Chemical Co., Joliet, plans by Dubin & Dubin, 127 N. Dearborn St., Chicago, 2 and 3 story, brick, rein.-con. chemical laboratory and administration bldg. **$200,000.**

Ia., Sioux City — MFG. PLANT — Wilson Body & Trailer Co., c/o Mr. Wilson, 615 Water St., plans by W. Beuttler, 405 Ins. Exchange Bldg., mfg. plant. **$100,000.**

Md., Dundalk—FACTORY—Crocker Union Label Mfgrs., 735 Harrison St., San Francisco, Calif., plans 80% completed by L. Bosener, 233 Sansome St., San Francisco, Calif., 1 story, rein.-con. factory. **$250,000.**

Mich., Detroit — PLANT — American Metals Products Co., 5959 Linsdale Ave., plans 75% completed by Giffels & Vallet, Inc., L. Rossetti, Assoc., 1000 Marquette Bldg., brick, steel, rein.-con. metal products plant. **$184,000.**

Mich., Pinconning—PLANT—Kraft Food Co., 500 N. Peshtigo, Chicago, Ill., brick, steel, concrete plant addn. **$170,000.**

Mich., River Rouge—PLANT—Brownlee Lumber Co., 3 Hawks Ave., plans completed by Harley, Ellington & Day, 1507 Stroh Bldg., Detroit, brick, concrete, steel, masonry plant, incl. lumber mill, prefabricating plant, lumber storage bldgs. and office, track facilities, approx. **$450,000.** Financing provided.

Miss., Laurel — PLANT — Jones County Co-Operatives, c/o C. McNeil, mgr., superphosphate plant, **$150,000;** fertilizer plant, **$100,000.** Financing provided.

Mo., North Kansas City—PLANT—H. D. Lee Co., c/o Mr. Kaywood, pres., 20 and Wyandotte Sts., Kansas City. Food plant. Over **$55,000.**

★**Mont., Billings**—REFINERY—Carter Oil Co., Billings, refinery. **$8,000,000.**

N. Y., Rochester—BUS TERMINAL—Central Greyhound Lines, Inc., 72 Franklin St., bus terminal. **$350,000.** Financing provided.

O., Ashtabula — WAREHOUSE — Ashtabula Box Co., Ashtabula, plans by C. V. Martin, Ashtabula, brick, steel, concrete warehouse addn. **$120,000.**

★**O., Brilliant**—GENERATOR—Ohio Power Co., Canton, 305 Cleveland Ave., S.W., and Newark, steam electric generator, addnl. transmission lines. **$10,600,000.**

O., Cygnet—PUMPING STATION—Buckeye Pipe Line Co., 137 W. North St., Lima, 25x68x142 ft., concrete fdn., pumping station in Bloom Twp., near here. **$347,200.**

O., Port Clinton—FACTORY—Port Clinton Marine Co., 328 W. Perry St., 1 story, 133x156 ft., factory. **$138,000.**

O., Toledo—PLANT—E. I. duPont de Nemours & Co., duPont Bldg., Wilmington, Del., altering existing 3 story, 64x130 ft., plant on Tremainesville Rd. **$136,910.**

O., Toledo—PLANT—Willys-Overland Motors Inc., Yost St., remodeling bldg. No. 6. **$423,000.**

O., Toledo—WAREHOUSE, etc.—Libbey Glass Div., Owens-Illinois Glass Co., Ash St., 28x100x240 ft., warehouse, **$150,000;** 2 story, structural steel, concrete block walls, 100x240 ft., factory, **$240,000;** remodeling factory, laboratory and cafeteria interiors, **$80,000;** remodeling warehouse offices and maintenance shops, **$18,000;** exten. 2nd floor inside existing bldg., **$110,000;** 15x50x50 ft., compressor bldg. addn., **$50,000;** fdns., new column footings on present structures, **$165,000.**

Okla., Tulsa—Reuberg's Dpt. Store, 311 S. Main, plans by Parr & Aderhold, Hales Bldg., Okla. City, 4 story, bsmnt. dpt. store. **$250,000.** Financing provided.

★**Ore., Portland** — FACTORY — Fibreboard Products Inc., Russ Bldg., San Francisco, Calif., plans 200x650 ft., rein.-con. carton factory. **$1,000,000.** Leland S. Rosener & Co., Sansome St., San Francisco, Calif., consult. engrs.

Pa., Hershey—PLANT—Hershey Chocolate Corp., 19 E. Chocolate Ave., plans under way, plant addns., alterations, over **$100,000.**

★**Pa., Phila.**—GARAGES—Owner, c/o S. D. Setzer, 12 S. 12 St., garage, 15 and Filbert Sts.; 15 and Sansom Sts.; 16th and Filbert Sts., **$200,000;** 16 and Sansom Sts.; 17 and Filbert Sts.; 17 and Sansom Sts.; 18 and Filbert Sts., **$200,000** each.

Proposal Advertisements see p. 26 and 27

OFFICIAL PROPOSALS

OFFICIAL PROPOSALS

Bids: Sept. 4 (239)

State Highway Work

STATE DEPARTMENT OF PUBLIC WORKS
BUREAU OF CONTRACTS & ACCOUNTS
ALBANY, N. Y.

Sealed Proposals will be received by Henry A. Cohen, Director, Bureau of Contract & Accounts, 14th Floor, The Governor Alfred E. Smith State Office Building, Albany, N. Y., until ten-thirty o'clock A. M., advanced standard time, which is nine-thirty o'clock A. M., eastern standard time, on Wednesday, September 4, 1946, for the construction and reconstruction of highway projects in the following counties:

County	Deposit for plans	Bid deposit	Type	Miles	Dept. estimate
CONSTRUCTION					
Bronx	$20	$49,000	Grading & Structures Inc. Conc. Rigid Frame Span 62'5½" Conc. Rigid Frame 2 spans 39' each Alterations to Br. #6	0.28	$828,000
Essex	5	4,500	Graded Gravel (Gravel Bit. Mulch)	0.75	85,000
RECONSTRUCTION					
Columbia	5	9,000	I-Beam, 6 spans 50' each; Conc. 8-7-8, 24'	0.40	165,000
	This project involves the use of Alpha Composite Construction which is patented the royalty is $357				
Columbia	5	8,500	Conc. 8" thk. 24' wid. I-Beam Br. 5 spans 50' each	0.44	154,000
	This project involves the use of Alpha Composite Construction which is patented and the royalty is $276.38				
Erie and Wyoming	10	22,000	Conc. 8"-7"-8" thk. 24' wid.; Asph. Conc. Opt.; Misc. Work: Br. Conc. Arch 21' 4" span	3.53	395,000
Livingston	20	31,000	Conc. 8" thk. 24' wid. Asph. Conc. Opt.; I-Beam Br. 32' span; I-Beam Br. 50' 3½" span; I-Beam Br. 41'5" span	6.58	580,000
Monroe	10	18,000	Bit. Mac. Opt. Mix; Br. Conc. slab, span 26'	7.04	327,000
Nassau	10	33,000	2144' viaduct; Substructure only	0.45	575,000
Oneida	10	15,000	Conc. 8"-7"-8" thk. 22'-30' wid.; Bit. Mac. M. M. Opt.; Br. Conc. Box 10' x 5'	3.56	50,000
Ontario and Yates	5	6,000	Asph. Conc. M.M. Opt. Conc. FDT. 8" thk. Br. Conc. Box span 22'	1.37	106,000
Suffolk	10	30,000	Conc. 9" thk. 46' wid. Misc. Work	2.89	532,000

Maps, plans, specifications, and estimates may be obtained at the office of the Department of Public Works, Bureau of Contract & Accounts, Albany, N. Y., and at the office of the District Engineers in whose district the roads are located, the names and addresses of the District Engineers will be furnished on request, and may be seen at the office of the State Department of Public Works, State Office Building, Room 898, Worth & Center Streets, New York City.

The deposit for Plans and Proposal Forms for each contract containing 1 to 15 sheets is $5.00; 16 to 30 sheets, $10.00; over 30 sheets, $20.00. A refund will be made in full to bidders for return of one set, in good condition, within 30 days of award, or rejection of bids; refund for all other sets in good condition, similar period will be 50% of deposit.

Special attention of bidders is called to "General Information for Bidders" in the proposal, specifications, and contract agreement, and to the special provisions applying to projects financed with federal funds. Proposal for each contract must be submitted in a separatte sealed envelope with the name and number of the contract plainly endorsed on the outside of the envelope. Each proposal must be accompanied by cash, draft or certified check payable to the order of "State of New York, Commissioner of Taxation & Finance" for the sum as specified in the advertisement and the proposal. The retention and disposal of the bidding check, the execution of the contract and bonds shall conform to the provisions of the Highway Law, as set forth in "Instructions to Bidders."

When optional types are permitted on contracts with federal funds, bidders must state in the space provided in the proposal the exact designation of the optional type upon which the proposal is predicated.

Minimum Wage Rate per hour for above work shall be as follows:

County	Skilled Labor	Intermediate Grade Labor	Unskilled Labor
Bronx	$ 1.20	$1.20	$1.20
Columbia	1.00	1.00	1.00
Erie	1.12½	1.12½	1.12½
Essex	0.85	0.85	0.85
Livingston	0.85	0.85	0.85
Monroe	1.10	1.10	1.10
Nassau	1.20	1.20	1.20
Oneida	0.95	0.95	0.95
Ontario	0.86¼	0.80	0.80
Suffolk	1.00	1.00	1.00
Wyoming	1.12½	1.12½	1.12½
Yates	0.86¼	0.80	0.80

Bids: Sept. 10 (234)

Completion of Delaware Aqueduct

CONTRACT 388

SEALED BIDS will be received by the Board of Water Supply, at its offices, thirteenth floor, 120 Wall street, New York City, until 10:00 A. M., Eastern Standard Time, on Tuesday, September 10, 1946, for Contract 388, for construction and installations to complete structures at fifteen localities along the portion of the Delaware aqueduct about 67 miles long from Shaft 4 in the Town of Gardiner, Ulster county, to Shafts 1A at Hill View reservoir in the City of Yonkers, Westchester county, New York, all as set forth in the specifications.

The work to be done under this contract includes installing in the shafts, chambers and other structures of the aqueduct, equipment and materials to be furnished by The City; furnishing and installing other equipment and materials in these structures; unwatering the aqueduct tunnels for inspection; removing the temporary doors, windows and window closures from the chamber and other superstructures along the aqueduct and installing the permanent doors and windows; constructing electric transmission lines and concrete roads and completing the grading, seeding and grassing in areas adjacent to a number of the chambers, and performing other work incidental to or in connection with that mentioned above.

No bid will be received and deposited unless accompanied by a certified check upon a National or State bank, drawn and made payable to the order of the Comptroller of The City of New York, in the amount of one hundred thousand dollars ($100,000.00), for the proper execution of the contract.

At the above place and time the bids will be publicly opened and read. Sets of pamphlets containing information for bidders, forms of bid and contract, specifications, contract drawings, requirements as to surety, etc., can be obtained at the office of the Secretary at the above address, upon application in person or by mail, by depositing the sum of five dollars ($5.00) in cash or its equivalent for each set. Within 30 days following the award of contract or rejection of bids, the full amount of such deposit will be refunded for each set submitted as a bid and a refund of four dollars ($4.00) will be made for each other set returned in acceptable condition. Arrangements will be made whereby prospective bidders desiring blueprints of the contract drawings for their own use may secure same, the cost thereof to be paid by them. For further particulars, apply at the office of the Chief Engineer at the above address.

IRVING V. A. HUIE, President, HENRY HESTERBERG, RUFUS E. McGAHEN, Commissioners, Board of Water Supply; RICHARD H. BURKE, Secretary.

Bids: Sept. 11 (241)

Constructing Shafts

COMMONWEALTH OF MASSACHUSETTS
METROPOLITAN DISTRICT WATER SUPPLY COMMISSION

Sealed proposals will be received at the office of the Metropolitan District Water Supply Commission, 20 Somerset Street, Boston, Mass., until 11:00 A.M., Eastern Daylight Saving Time, Wednesday, September 11, 1946, and then publicly opened for Contracts 117-A and 117-B for constructing shafts 6 and 7 of the City Tunnel section of Hultman Aqueduct in the cities of Newton and Boston respectively. Shaft 6 will be about 290 feet and Shaft 7 about 240 feet deep. Shaft 6 will be about 14 and Shaft 7 mainly about 20 feet in diameter after lining. The work consists of excavating and lining the shafts and excavating, but not lining, about 200 feet of tunnel on either side of each shaft, and also about 300 feet of spur tunnel northeast of Shaft 7. Three of the tunnel headings will be approximately 15½ feet in diameter and the other two approximately 13½ feet in diameter, all unlined. Bidders may bid on work at either one or both shafts. Each bidder shall deposit security in an amount not less than 5% of his bid. A bond in at least the full amount of the contract will be required of each successful bidder to secure the faithful performance of the contract, and for the payment of all persons performing labor or furnishing materials in connection therewith. Special attention is called to the requirements as to conditions of employment to be observed and to the minimum rates of wages prescribed by the State Commissioner of Labor and Industries. A schedule of such rates may be obtained at the office of the Metropolitan District Water Supply Commission. The information for bidders, and the prescribed forms of proposal, contract, bid bond and performance bond, and plans and specifications may be examined at the above address, and copies thereof obtained from Karl R. Kennison, Chief Engineer of the Commission, upon the deposit of $10, to be refunded only to bidders or to others returning them within ten days after the opening of bids. The site of the work and the existing conditions at and near the shaft sites may be seen by applying at the office of the Division Engineer, 107 Charles Street, Auburndale, Mass. The Commonwealth reserves the right to waive any informality in, or to reject, any or all proposals. No bidder may withdraw his bid within thirty days after the actual date of the opening thereof.

WILLIAM T. MORRISSEY, Chairman
August 14, 1946

U. S. Government

COMMISSIONERS, D. C., Washington, August 22, 1946. Sealed proposals will be received at Room 509, District Building, until 2:00 P.M., September 24, 1946, and then publicly opened and read, for furnishing materials and performing the work of reconstructing the bridge carrying the Baltimore and Ohio Railroad over Riggs Road, Northeast, Federal Aid Project FGI-52-(1). The principal quantities include 22,000 cubic yards of fill material; 1,600 cubic yards of concrete; and 355,000 pounds of steel. All bidders are hereby notified that any bid submitted in response to this advertisement must be accompanied by a statement of facts in detail of the business and technical organization of the bidder available for the contemplated work, including his financial resources. The Commissioners expressly reserve the right to reject any bid in which the facts as to the business and technical organization, financial resources or experience compared with the project bid upon and based upon past known performance justify such rejection. Certified check for $10.00, payable to the Collector of Taxes, D. C. to insure return in good condition, should accompany each request for proposals, specifications and drawing, to the Chief Clerk, Engineer Department, Room 427, District Building. Not more than three (3) sets of drawings and specifications will be furnished to any one contra tor. (240)

EMPLOYMENT OPPORTUNITIES

DESIGN AND DRAFTING ENGINEERS

Positions open with South Dakota Highway Commission Plans Department.

Experienced men with ability in drafting. Final Plans preparation and Right-of-Way maps wanted.

Positions permanent for well qualified men.

Write South Dakota Highway Commission, Pierre, South Dakota, giving experience and salary desired, first letter.

WANTED

STRUCTURAL, MECHANICAL, ELECTRICAL DESIGNERS

FOR

POWER PLANT WORK

Apply Room 9330
Electric Engineering Department

PUBLIC SERVICE ELECTRIC & GAS CO.
80 PARK PLACE, NEWARK, N. J.
or
Phone: MARKET 2-700, Extension 2481

WANTED

Fully qualified by education and experience engineers and draftsmen for design—water distribution, sewerage—sanitary and storm, highways. Permanent positions with retirement benefits. Give full data as to age, education and experience, references, availability and salary expected.

Communicate directly with

G. DOUGLAS ANDREWS,
Chief Engineer
Baltimore County, Court House
TOWSON 4, MARYLAND

WANTED

CAPABLE ERECTION ENGINEER

Must understand estimating from drawings as well as planning for erection forces in field on both structural and plate work. State age education, experience, references and compensation desired first letter.

P-839, Engineering News-Record
330 West 42nd Street, New York 18, N. Y.

WANTED

DESIGN ENGINEER

Experienced in responsible charge of design water supply and sewerage systems. State experience, age, education, starting salary expected and references. Excellent opportunity. Location Central Illinois.

P-834, Engineering News-Record
520 North Michigan Ave., Chicago 11, Ill.

WANTED

STRUCTURAL DESIGNERS

Of Continuous and Rigid frame Structural Steel and Concrete highway bridges. 38 hour week. Salary $450.00 per month. Location and work in Chicago, Illinois only.

P-836, Engineering News-Record
520 North Michigan Ave., Chicago 11, Ill.

POSITIONS VACANT

WANTED—ENGINEERS experienced in the design of sewers, sewage treatment plants and water treatment plants. State qualifications, experience and salary requirements. P-787, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

DESIGNER ESTIMATOR, and draftsman—Shop fabricating structural and ornamental iron work, located in Norfolk, Va. Experience required at least 10 years with shop doing similar work. Permanent job to right man. Give full particulars in first letter. P-788, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

EXPERIENCED ESTIMATOR wanted, preferably with college engineering training. Must be familiar with industrial and commercial building construction and materials. Excellent and permanent position. Location Western Maryland. Furnish references, age and experience with inquiry. P-801, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

DRAFTSMAN: FIRST Class man for piping layout work; estimating and field experience desirable. P. O. Box 2240, Norfolk, Va.

ENGINEER, FOR general construction contractor, skilled in preparing quantity takeoffs from plans, drafting, calculating and surveying. P. O. Box 2240, Norfolk, Va.

STRUCTURAL STEEL Draftsman for work with small fabricating shop in Florida. Prefer man who has had experience detailing for welded construction. Give references and experience in first letter. P-807, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

MECHANICAL ENGINEER: Graduate, about 35 years old to handle engineering design. Experienced—crane and shovels—permanent, good working conditions. Location, western Ohio. State experience and salary expected. P-809, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

STRUCTURAL DESIGNERS and draftsmen for bridge and grade separation work. Must be civil engineer with experience in structural drafting. Application should state education, experience, age and references and should include sample of your drafting. P-811, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

STRUCTURAL DESIGNERS: and draftsmen for bridge and grade separation work. Must be graduate Civil Engineer with experience in structural drafting. Applications should state education, experience, age and reference and should include sample of your drafting. P-814, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

INSTRUCTOR OF Assistant Professor of civil engineering, to teach course in Soil mechanics, Geology, and Surveying. Position available in October. Location, Massachusetts. P-841, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

ASSISTANT OR Associate Professor to teach mechanics and strength of materials desired by state university in Southeast. Man available in September preferred, but would consider January applicant if necessary. Salary $3000 to $4000. P-842, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

WANTED: SUPERINTENDENT for a medium size structural steel shop, that specializes in fabricating steel for buildings and bridges. Location middle West. This opening offers a fine opportunity for someone who has the proper knowledge and experience of this kind of work. Technical education, dependability, and ability to handle men are important factors. Send complete information. P-845, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

WATER FILTRATION plant chemist and operator for municipal water supply system of village near New York City. Starting at $2,700 depending upon qualifications. Must be experienced in water analysis and plant operation. P-846, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

WANTED: HIGHWAY Construction foremen, well qualified experienced men only; state references and all details first letter. Location, Eastern New York State. P-863, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

POSITIONS VACANT

ENGINEERS: PERMANENT positions open for engineers experienced in the design of water and sewage treatment plants and concrete designers by a large consulting engineering organization. State qualifications, experience, and salary requirements. P-864, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

WANTED: LARGE Public Utility operating in four states has opening for electrical or civil engineer experienced in field surveys for high voltage transmission lines, substations, etc. in rough country, fully qualified to supervise office and field work of several survey crews. Position offers permanent employment for right man. State age, education, complete details of experience, reference, etc. in first letter. Address: P. O. Box 1990, Roanoke, Va.

WANTED: GOOD Designers and skilled draftsmen experienced on water purification plants, sewage treatment plants, and structural steel bridges. Good working conditions in Chicago organization operating on a profit-sharing plan. If interested send present salary requirements for 44 hour week, past salaries earned with details of employment and hours worked, family status, condition of health and if available, a photograph together with names of three current references familiar with specified skills. Consoer, Townsend & Associates, 211 W. Wacker Drive, Chicago 6.

STRUCTURAL CHECKERS: detailers steady employment. Ralph Rinker, 572 Bellevue Ave., Trenton, New Jersey.

ARCHITECT: San Francisco, needs capable designer. Some sketch drawing and delineating. General non-residential practice. Can make two-room apartment available for temporary accomodations. Good opportunity right now. State age, education, experience, references, salary desired. Photos and specimens of own work preferred with reply. P-865, Engineering News-Record, 68 Post Street, San Francisco 24, Cal.

WANTED: SUP'T and foreman. Experienced in road, sewer, and public utility construction in Metropolitan New Jersey. State age, experience and wage. P-866, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

ESTIMATOR: STRUCTURAL and miscellaneous iron, for building construction, small shop in Detroit, Mich. Engineering experience preferred. State qualifications and salary desired. P-867, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

CONSTRUCTION ENGINEER: and estimator wanted for established building contractor's office. Location New York City. Permanent position and good opportunity for the right man. Replies should give full experience and personal data. P-868, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

POSITIONS WANTED

ASSISTANT CITY Engineer: Graduate, Civil Engineer, 25, married, Jr. ASCE member, requires permanent position as assistant in city water supply and sewage disposal in western states. 2½ years welded structure design, Todd Pacific Shipyards. Starting salary $275-$325. Discharged in July from Army. Box 187, Dietrich, Idaho.

GRADUATE CIVIL Engineer, 28 married. Four years exceptionally varied construction engineering; two years with C.E. Corps U. S. Navy. Can do executive or general construction engineering. Desire position that requires a capable and energetic man offering a future with a general contractor or engineering firm. Available immediately. L. T. Marshall, Box 55 Minneola, Kansas.

SUPERINTENDENT: 20 years engineering and construction experience. Specialist in reinforced concrete and steel erection. Planning, estimating and coordinating sub-contractors. Take full charge of work. PW-874, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

OFFICE MANAGER: Field, age 37, 15 years experience, full charge of field office. General contractors, cost plus and contract work. Present income $6,000, base plus. PW-733, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

Additional Employment Opportunities Continued on page 28

EMPLOYMENT OPPORTUNITIES

RATE: 15 CENTS A WORD, MINIMUM CHARGE $3.00

Positions Wanted (full or part time individual salaried employment only), ½ the above rates, payable in advance.

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POSITIONS WANTED
(Continued from page 27)

CIVIL ENGINEER: 24 years varied experience in heavy construction with consultants and contractors desires responsible position. Licensed in New York. PW-750, Engineering News-Record. 330 W. 42nd St., New York 18, N. Y.

BUILDING CONSTRUCTION superintendent experience covers 30 years and over 40 million dollars of various kinds of structures and further includes estimating, purchasing and general manager with reputable firm. PW-864, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

PROJECT MANAGER: 23 years administrative and engineering experience. Registered engineer. Degrees: C.E. and M.E. Former Officer, Corps of Engineers. PW-817, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

CIVIL SANITARY Engineer: Teacher. Associate member A.S.C.E. Age 45, single, education: B.S. in C. E. C.E., M.C.E., M.S. in Ph.E. Registered Twenty years experience in engineering, construction, business, and teaching. PW-818, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

ELECTRICAL ENGINEER: Now employed desires change. Over twenty years experience with power company, engineers and contractors. Single, free to travel. Foreign duty acceptable. Best of references. O.K. to contact present employer. PW-823, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

ENGINEER EXECUTIVE, 25 years in building construction, negotiating general and sub-contracts, purchasing materials and equipment. Available Sept. 15th. PW-822, 330 W. 42nd St., New York 18, N. Y.

POSITIONS WANTED

CONSTRUCTION SUPERINTENDENT: Broad experience power and industrial plants. Deep foundation, mass and reinforced concrete. Responsible charge of large operations. PW-848, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

CIVIL ENGINEER: 29, 5 years experience estimating, reports and minor design. Presently employed at $300 but wants change of location to New England. PW-852, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

BRIDGE STRUCTURAL Engineer (Cornell) over 30 years experience; design, construction, maintenance, foundations, superstructures, timber, steel, concrete; railway highway structures, bridges, drawspans, coal tipples, bins, piers, industrial buildings. Twenty years with railroads; work done with company forces. Box 43, Swarthmore, Penna.

SUPERINTENDENT: Age 45, married, 25 years experience direct charge, highways, bridges, airports, heavy excavations concrete, pile driving, cofferdams, water sewers. Seeks connection with reliable firm. Highest reference. Available September. PW-869, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

STRUCTURAL ENGINEER: 30 years experience design and detail all types of structural steel work, seeks position as chief engineer or chief draftsman with steel fabricators. Age 58, salary $450. PW-870, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

SUPT. OR General foreman of cement finishers. 2 years C.E. background. Age 36, 17 years experience in heavy construction. Familiar with all types of cement finishing. Industrial floors, dams, etc. Family man, sober and dependable. Prefer West Coast. Wm. S. Hines, 5875 Theodosia, St. Louis 12, Mo.

POSITIONS WANTED

PROJECT MANAGER all phases heavy construction, capable organizer with record of low cost construction. 12 years Latin America. Speaks Spanish. Highest references. PW-873, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

CHIEF ACCOUNTANT—Field. Age 42, C.P.F.F., unit and flat contracts on F.P.H.A., Army, Navy and private jobs. Organize force and assume responsibility. Salary $6500 base. Available September 9th. PW-871, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

MECH. AND Struct. Engineer, with over 30 years experience and a good all around knowledge of copper, rayon and chemical plant design, construction, maintenance and research, in the States and South America, desires permanent, responsible position as plant, construction designing or research engineer. Good engineer, mechanic, and organizer with executive and creative ability. Speaks Spanish and German. Location preferred, South or Foreign. At present located in the South. PW-872, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

PART TIME WORK WANTED

STRUCTURAL DESIGNER: 25 years experience, industrial and commercial buildings, steel and reinforced concrete; superstructures and foundations. Seeks part time work, designing, checking, details, estimates. PTWW-825, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

STRUCTURAL ENGINEER: registered, 22 years experience in buildings, rigid frames, foundations, underground structures, etc., desires part time work designing, detailing, or checking. PTWW-706, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

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